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THE

# Fiftieth Annual Report

OF THE

# DIRECTORS AND OFFICERS

OF THE

# AMERICAN ASYLUM

AT

# HARTFORD,

# FOR THE EDUCATION AND INSTRUCTION

OF THE

# DEAF AND DUMB.

PRESENTED TO THE ASYLUM MAY 12, 1866.

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# REPORT OF THE DIRECTORS.

TO THE PATRONS AND FRIENDS OF THE AMERICAN ASYLUM:

The fiftieth year of the corporate existence of the Asylum is now closing. Its charter was granted by the General Assembly of this State in May, 1816, under the title of "The Connecticut Asylum for the Education and Instruction of Deaf and Dumb Persons."

Of the sixty-three persons named in the act of incorporation, eight are now living, and of these, four are still officially connected with the Asylum.

One of the original corporators, Hon. Seth Terry, who has long been a zealous and faithful officer of the Asylum, died on the 18th day of November last, at the age of 84 years. Mr. Terry was chosen a Director of the Asylum in May, 1818; in 1820 he was elected Secretary of the Corporation, which office he held until 1830, when he was again chosen a Director, and continued a member of the Board as Director or Vice President until his death. In May, 1838, upon the resignation of Wm. Ely, Esq., the first Commissioner of the Fund, Mr. Terry was appointed his successor, and discharged the laborious and responsible duties of that office until May, 1863, when his resignation was accepted. During the last two years of his life, his failing health prevented his taking an active part with his associates. Mr. Terry, from his long and prominent connection with this Corporation, and from his efficient participation in many other philanthropic and religious interests, was so generally known to the friends, pupils and visitors of the Asylum, that it is needless for us to speak at length of his character and services.

The history of the Asylum for the year just closed, is marked by no important changes or extraordinary occurrences. The accompanying Report of the Principal will exhibit in detail statistics of interest in regard to the number and progress of the pupils.

The management of the departments of Government and Instruction has been entirely satisfactory. While the Principal and his able corps of Instructors are constantly aiming to increase and improve the effectiveness of the present methods of instruction, no radical changes are contemplated.

The general reduction of prices and consequent decrease of expenses which we hoped for at the time of our last Report, has not been realized to any considerable extent. Still, under the very judicious management of our Steward, Col. Kennedy, the expenses of his department have been somewhat reduced.

The increase of the annual charge which was determined upon in February, 1865, did not affect the revenue for the whole year; but, from the partial results of the increase, we confidently hope that the maximum charge has been reached.

The claim of the Asylum upon the Phœnix National Bank is still unsettled, and no income from this source has accrued during the year.

The bequest of Mr. Blodgett, which was reported in 1865, has not yet been received, nor its amount definitely ascertained, but the estate will probably be settled within the next four months. The bequest is so limited in its terms, however, that it will not increase the permanent funds of the Asylum.

In behalf of the Directors,

JOHN C. PARSONS, *Clerk.*

HARTFORD, May 5, 1866.

# REPORT OF THE PRINCIPAL.

To the Board of Directors:

The American Asylum entered upon its fiftieth year on the 15th of April last. The first Report issued, bears the date of June 1, 1817. As the school was opened on the 15th of the April preceding, the Report gives a history of the preliminary arrangements, and of the first month and-a-half of its progress. The close of the current year of the Asylum, April 15th, 1867, will complete fifty years of its existence, and its general history, and the incidents worthy of notice during the half century of its most prosperous and beneficent course, will properly come under review in connection with our next Report. The forty-ninth year of the Asylum, which closed on the 15th ult., is the one which comes specially under notice in the present retrospect.

The number of pupils present at the date of my last Report was two hundred and twelve. Fifty-five new pupils, and ten former pupils, have been admitted since that time, making the entire number under instruction during the year, two hundred and seventy-seven. Sixty-three pupils have been dismissed, leaving the number at present in attendance, two hundred and fourteen. These, including the members of the Gallaudet Scientific School, are arranged in thirteen classes, each under the care of a separate instructor, making an average of a little over sixteen pupils in each class. While if necessary, two or three pupils might be added to this number without material detriment, yet the attention of a teacher concentrated upon a class of this size, will ensure a much more rapid and substantial progress than if divided among a larger charge.

Two changes have occurred in the department of instruction during the year. Mr. William A. Ayres, who had been with us one year, left at the close of the last term, to enter professional life. Mr. DeWitt Tousley resigned his place at the same time, to engage in agricultural pursuits. These vacancies have been satisfactorily filled by the engagement of Mr. William H. Weeks, a deaf-mute gentleman, who has had sixteen years experience in the New York Institution, and Miss Catharine T. Robinson, a semi-mute, a young lady of superior education, and formerly a member of our High Class. Mrs. Louisa P. Hotchkiss, who had been engaged as Assistant Matron, also left at the close of the term, to accept the appointment of Matron in the New York Institution. Her place has been temporarily and very acceptably filled by Mrs. E. M. Belden, who has devoted herself with great assiduity and faithfulness to the duties of her position.

In the course of the year, I have had the pleasure of visiting the different Legislative Bodies of New England, accompanied by pupils who were beneficiaries of the respective States, for the purpose of exhibiting the extent to which the misfortune of deafness can be relieved by education. Our party was everywhere most kindly and courteously received, and the visits seemed productive of mutual satisfaction. By this means, the members of these bodies residing in different and distant parts of their respective States, were made acquainted with the sad condition of these children before education, and the benefits received by their pupils from their instruction at the Asylum. An interest was excited in the cause of deaf-mute education, and its feasibility shown by visible demonstration.

At the close of the term in June, in accordance with our usual practice, all the classes were subjected to a full and critical examination, extending over a period of two weeks, the results of which were highly gratifying to the teachers, and commendable to the pupils. The object of the examination was not to display the attainments of the pupils, but to ascertain just what they were. It was conducted by a Committee of the Instructors detailed for the purpose, whose places were temporarily supplied by the members of the Scientific school, so that the exercises of the classes not under examination were not suspended. It was a careful and thorough inquiry into the knowledge of each pupil of the studies of the year, and especially of his ability to use and understand language. The performance of each pupil was carefully marked by each member of the Committee, the average of the marks given fixing the pupil's standing for the ensuing year. The members of the Scientific School were subjected to most searching and critical tests, and acquitted themselves with great credit in their various exercises.

The instruction in the Mechanical Department has been continued during the year, with the usual interest and success. We teach our pupils at present three trades, which have been found by experience the best adapted to meet their wants, viz: tailoring, shoemaking and cabinet-making. The infirmity of deafness is no bar to success in these and in several other employments; on the contrary, deaf mutes often make efficient and skillful workmen. None of our pupils are placed in the shops under the age of twelve. All the girls are instructed in plain sewing, knitting and in light domestic work.

The Tailor's Shop is under the efficient management of Miss Margaret Greenlaw, who has occupied this position for thirteen years. The smaller boys, and such of the girls as wish to become tailoresses, are placed here. Thirty boys and four girls are employed in this shop. The little boys learn the use of the needle, and acquire habits of industry. The garments manufactured are those of boys' wear, and are mostly used by the pupils. The room is well warmed and ventilated, and the pupils occupy chairs or high seats, and are not confined in the constrained position which sometimes injures the health of those who follow this employment.

The Cabinet Shop is under the care of Mr. Rufus Lewis, who has faithfully discharged his duties in this department for twenty-six years. He has twenty-four boys under his supervision. The boys show much ingenuity in the manufacture of various articles of furniture. They make bureaus, tables, secretaries, desks, &c., and some of their work would do no discredit to accomplished journeymen. In this shop the boys learn the use of tools, and after leaving the Asylum, can become carpenters, coopers, or carriage-makers, if they prefer. Many hundred deaf mutes in New England are earning a good living by the trade acquired here.

The Shoe Shop has for the last three years been under the charge of Mr. William B. Flagg, who has managed it with entire satisfaction. Twenty-seven boys are employed here. They are occupied in manufacturing all styles of shoes, and in repairing, and obtain a good knowledge of the art in all its branches. This trade is found to be specially adapted to the wants of the deaf and dumb, as it demands but little capital, is easily learned, and furnishes constant occupation. The shop is so arranged that much of the work is done in a standing position, thus obviating the objection which is sometimes made to this employment.

I regard the Mechanical Department of the Institution as constituting a most important branch of our course of training, and an essential part of the education of the deaf and dumb. Most of these children belong to the honorable class who depend upon their own exertions in some form for their support. The trades they here learn place them in an independent position, unite them to the productive classes of society, and give them the ability not only to maintain themselves, but often to assist their friends. Inasmuch, however, as a competent person must be employed to superintend the work, and stock and tools furnished, considering the fact, also, that many of the pupils are children, and that their work must come into competition with that of experienced mechanics, and with the rapid production of machinery, it is not to be expected that the shops should be to the Institution a source of pecuniary profit. The best result we could anticipate is that they should not become a matter of heavy expense. In some years, the utmost care has not sufficed to prevent this, and the outlays are always somewhat in excess of the returns. In my judgment, the expense is as legitimate and proper as that incurred for the intellectual education of our pupils.

In relation to learning trades, as well as to the intellectual progress of our pupils, the age at which they enter the Asylum becomes a matter of importance. In common with others who have been engaged in the instruction of deaf mutes, I am convinced that their school education should not commence earlier than ten, or be deferred longer than twelve years of age, and for many reasons the latter age is preferable. Before this period, the pupil rarely attains a mental maturity to overcome easily the serious obstacles he must meet in acquiring language, or physical strength to bear without detriment the confinement and labor of the school-room. Earlier than this, he cannot profitably commence learning a trade, which is so desirable a part of his training. The time previous to reaching this age is by no means lost. The deaf-mute child has everything to learn, and the lessons of the fireside and of home he cannot afford to lose. He should not be torn from the family circle, and separated from the moulding influences and social culture of domestic scenes during his earliest years. The peculiarities of his infirmity present the strongest reasons for bringing these influences around him as closely as possible. These early years should be spent in developing his physical powers by exercise in the open air, in cultivating his affections, and to a greater or less extent in enlightening his mind. He can easily be taught at home to write the names of common objects presented in nature, or in pictures, the names of his friends and neighbors, and of domestic animals, and many of the common processes of arithmetic. By such a course, many of the peculiarities induced by his deafness are rubbed off, and he becomes more like other children. His mind is stimulated and he is prepared to enter upon his education in the Institution at great advantage.

A very common mistake is made with regard to the character of Institutions for deaf mutes. Perhaps in our case, the term "Asylum" has contributed to this misunderstanding. It is not designed as a home for deaf mutes who are specially unfortunate, for those who are orphans, or neglected or destitute, however sad their case may be. It is a school for their education, and not a hospital for their support. We employ not physicians, nurses and servants, but teachers of ability and experience, and all the appliances of the Institution are for the instruction of deaf mutes and not simply for their maintainance. We do not in ordinary cases feel at liberty to retain pupils who prove to be incapable of intellectual progress. We not unfrequently have applications to receive children who are not sufficiently mature to enter upon systematic instruction, and they are pressed upon us, either because they have lost their friends, or, in some cases, because their friends desire to be relieved from the trouble and expense of their support. To these applications, for the reasons given, we cannot respond, and some temporary arrangement should be made for their relief.

In previous Reports, mention has been made of the two systems of instruction employed in the education of deaf mutes, and of the superior excellence of the one introduced into this country by Dr. Gallaudet when the Asylum was first opened. Every year's experience serves to confirm the correctness of his judgment, and to bear testimony to the preeminent success of this method of reaching the minds of deaf mutes, and relieving their misfortune. The reference made to these systems, however, in former Reports, has been rather of the nature of allusion, and casual remark, than a distinct setting forth of their peculiarities, and the reasons for preferring instruction by signs above any and all other methods. There is a charm connected with the idea of restoring a deaf mute to speech, which is not without its effect upon the popular mind, so that any effort in this direction which looks towards success, meets with favor. Were success in the case of the great mass of deaf mutes, to any valuable extent attainable or possible, every friend of suffering humanity would rejoice, and none more than those whose lives are devoted to their education. The fact that it is not possible to restore speech to the deaf and dumb to any considerable or useful degree, that the processes by which it is attempted are tedious and exhausting, and that the results attained are unsatisfactory and transient in their character, is not fully understood and may not have been sufficiently explained. It may, therefore, be proper to state somewhat more fully than we have been wont, our reasons for rejecting articulation as the medium, or as the end of instruction, and for adopting signs as the instrument for teaching the deaf mute language, and accomplishing the great work of his education. If these reasons and explanations seem trite to those who are familiar with the infirmity of deaf mutes, and with what they need to relieve them, there are others who are not conversant with the subject, and who may desire to have the means of forming for themselves an independent judgment on a point so seriously affecting the welfare of this class of the community.

There is a class of children in our Institutions for the education of the deaf and dumb, who have not entirely lost their hearing. This sense is impaired, but not lost. They can still distinguish articulate sounds, if enunciated distinctly, or perhaps near the ear. Now, the question is not whether a child who can hear should be instructed to use his vocal organs. No one disputes this, in theory or in practice. We talk to such children, and require them to talk to us—to recite orally, and to make known their wants in the same manner. We may remark here, it is surprising how slight a defect in the hearing will sometimes deprive a child of the benefit of a common school. It not unfrequently happens that when the ear is only dull and slow, and a little special attention would relieve the difficulty, the teacher will take no pains to meet his infirmity, and the child, failing in the endeavor to obtain oral instruction, is brought to a school for deaf mutes for education.

Another class is brought to us who lost their hearing by disease or accident, after having learned to talk. In some cases of this kind, where the hearing is entirely lost, the articulation is retained, and the child can communicate readily by speech though the intonations may be unpleasant. Both these classes are exceptional. Such children do not properly belong among deaf mutes, and there is no difference of opinion as to the best method for their instruction. Inasmuch as their medium of communication with others has not been lost, there can be no call for its restoration, and there can well be no greater imposition in articulation, or in signs, than to parade the attainments of such pupils as fair specimens of the results of the respective systems of instruction; yet this is sometimes done, to the serious detriment of honest and honorable instructors, and to the lasting injury of the cause of deaf-mute education, the friends of deaf mutes being led by such exhibitions to expect from either system far greater attainments than can by any possibility be realized. The question regarding the best system of deaf-mute education refers solely to those who are congenitally deaf, and to those who, having lost their hearing before they learned to speak, are now unable to distinguish by the ear articulate sounds: these two classes include nineteen-twentieths of the number who are brought to the Asylum for education.

The fundamental principles upon which the rival systems are based, reveal at once the mistake of the one, and the substantial truth of the other. Samuel Heinicke, the Founder of the German system, asserted that ideas can only be associated with *articulate words*, and that thought is impossible except through this medium. As he held that abstract ideas *cannot* be communicated to the deaf and dumb, either by written characters, or by pantomimic signs, of course they are shut up to articulation as the only medium of obtaining knowledge. Although these absurd notions have long since been abandoned by German teachers themselves, their influence, and the methods which sprung from them, still remain. The Abbe de L'Epee, the Founder of the French system, maintained, on the other hand, as the basis of his method, that ideas are as easily and naturally associated with written words, and with the signs or gestures of deaf mutes, as with vocal sounds, and that both may be the medium of thought. He might have gone still further, and said that while most vocal sounds, and all written characters represent ideas by a law entirely arbitrary and conventional, many signs represent ideas naturally and irresistibly, and so far they have a positive advantage over all other methods of communication. The two systems, proceeding thus as we have remarked, from fundamental principles, one of which is manifestly erroneous, and the other as plainly true, it is not singular that they should themselves partake of the same characteristics.

In common with the great body of instructors of deaf mutes, with the exception of the German teachers, we reject articulation as a system of instruction, for the following, among other prominent reasons :—

1st. In this method of instruction, a great deal of time is lost in teaching sounds, which is of no benefit in mental culture.

For a considerable period, the effort of the teacher is expended simply upon mechanical articulation. It is to teach the pupil to produce the proper sounds. The change in the vocal organs in making various sounds, is so slight that it requires the keenest observation, the most careful and even painful attention to note them, and the sounds can only be reproduced or imitated by oft repeated trials and long practice, if at all. All the labor required to enable the pupil to utter sounds, and this as will be seen is immense, imparts no knowledge whatever. A word from a language which we do not understand, may be sounded in the ear for a century without imparting any conception of its meaning, much less will the position and movement of the vocal organs interpret it. In some articulating schools, two years are spent, and in others a still longer period upon elementary sounds, and single words, before connected language is attempted. This time is almost entirely lost to mental culture. It is occupied in teaching sounds, and not in conveying ideas. One of the most distinguished German teachers, Mr. Haug, acknowledges "that the first years of instruction must be regarded as lost in reference to moral and intellectual education, and the study of language, since exercises in articulation contribute little or nothing to the development of the intellect, and are still less adequate to answer the religious wants."*

2. Under this system, a large class of deaf mutes must be left without instruction.

While a small number whose minds are active, powers of observation acute, and vocal organs peculiarly flexible, may with sufficient labor, be taught to enunciate sounds, and to use spoken language, with a very large class, this is found and acknowledged to be utterly impracticable. Accordingly, in schools where articulation is the basis of instruction, the selection of pupils is made with great care, and many applicants are rejected. In most German schools, from one-fourth to one-third are rejected at the outset. Even with this careful selection, a large number are dismissed after trial as incapable of progress. In some schools as many as one in five, and in others one in three, are dismissed for this reason. Having no aid from the ear in producing the proper sound, and depending entirely on the eye, only the closest observation can mark, and only the most flexible organs imitate the positions required for the different sounds. In the German language, where each letter has the same sound in all combinations, this difficulty is almost insuperable. In the French, and more than all, in the English, with its silent letters and anomalous construction, the task is still more formidable. The most distinguished German teachers allow that not more than one-fourth, at most, of the whole number of deaf mutes can advantageously be taught to speak. Unless taught by some other method, the remaining three-fourths must be left in ignorance. Indeed, those who are found incapable of learning to speak, are considered as deficient in intellect. Where pupils are taught by signs, not one in fifty is rejected for incapacity, and cases are rare in which pupils do not obtain a fair education.

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*Dis. at Pforzheim, p. 2. 1847

3. The intonations, of the voice and the distortions of the countenance in teaching and practicing articulation are disagreeable.

These would be considerations of minor importance, if this method of instruction, were in other respects, undeniably the best. But where this fact does not appear, they are worthy of notice. As the ear is closed, the pupil has no guide to modulate the voice, or to measure the tone and quantity, and the expulsion of sound must be very much a matter of haphazard. Some pupils speak only in a whisper and cannot rise above it. Others take a very high key, with the tones harsh and unnatural, like a screech. Others still speak in rough heavy explosions, without modulation or inflexion.

Of course, the impression made upon persons addressed is any thing but agreeable. Mr. Weld remarks, "I scarcely met with an intelligent person of any rank, even in Germany, who spoke of the articulation of the deaf and dumb with approbation. It was rather with disgust as a matter very repulsive, and disagreeable."* Educated pupils of refined taste, who have lost their hearing, are usually unwilling to speak from the feeling that the intonations of their voice are not agreeable. The excellent Dr. Kitto, invariably resorted to writing in conversing with his friends, though he would talk freely with children. The instances where the tones are soft and pleasant, are rare and happy exceptions, and usually cases where the hearing has been lost at a comparatively late period. The distortions of countenance which are deemed necessary in teaching the simplest elements, in order to show the position of the vocal organs in producing the required sound, are not pleasant to the eye, and could hardly be endured except as the best means of securing an important end.

4. The prominent cases of success in Institutions of this character, are pupils who lost their hearing after they had learned to talk, and have never lost their articulation.

We have pupils of this class in all our Institutions. Of course, their ability and attainments are no test of what instruction in articulation can effect for persons born deaf and dumb. Yet these cases are constantly brought forward for this purpose, and it is cases of this character which have made so much impression in favor of this kind of instruction by those who are not familiar with its processes or general results. Says Professor Eschricht, of the University of Copenhagen, "I cannot but avow my conviction that all the deaf mutes [in the German Institutions] who speak easily and pleasantly, and who in most of the Institutions are made far too prominent, were not deaf from birth, but became deaf at the age of five or six years."† The experiment which is being tried in a neighboring city that has excited some notice, is not with a congenital deaf mute, but with a bright little girl who lost her hearing after she had learned to talk, and who was considered quite precocious in the use of language up to the time of her misfortune. We wish the highest success to every effort to teach this class of children to talk. By faithful and skillful instruction, their speech may often be in a great measure restored, but success here constitutes no argument for teaching congenital deaf mutes by the same process. Abundant experience has shown that the case of a congenital deaf mute who can speak readily, pleasantly and intelligibly, even after prolonged and patient instruction is exceedingly rare. Careful observation proves that only about one-fourth of the pupils in these Institutions get substantial benefit; with the rest very little or nothing is gained.

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*Weld's Rep., p. 119.

†Prof. Day mentions the following fact: In the year 1845, one of the teachers in the Institution for the Deaf and Dumb at Copenhagen, named *Dahlerup*,

5. The ability to converse in general society is not secured by this method of instruction.

While many deaf mutes may be taught a few common-place phrases, and to communicate with their teachers on familiar subjects upon which they have received special instruction, beyond this, their articulation, except in rare instances, is of little use to them. Nothing is more fully established than the fact that only a very few deaf mutes can make themselves understood upon miscellaneous subjects in general society by articulation. The warmest advocates of the system are obliged to concede this, and no one denies it, or claims that they become able to take part in general conversation, or to comprehend much that is not specially addressed to them. Prof. Day says, " a very general impression seems to prevail among intelligent Germans, that the articulation of the educated deaf and dumb is unintelligible. While I have met some who maintained the contrary, the more common testimony given by Professors, Clergymen, and gentlemen of other professions is, 'We cannot

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visited the most important German Institutions at the expense of the Danish government, and on his return, recommended the adoption of the German method. The Danish government, before venturing to adopt this recommendation, against the judgment of the other teachers, wisely committed the whole subject to Dr. Eschricht, who pronounced adversely to the proposal of Dahlerup. The result is that the Royal Institution at Copenhagen still continues to teach on the French method. Am. Annals, Vol. VII, pp. 130, 1.

understand them.' "* It is left to foreign travelers to imbibe extravagant notions, and to spread inflated accounts of the correctness with which these children use spoken language. Sentences and words that might be understood by the teacher are unintelligible to a stranger and often no effort of repetition can bring a remedy. The end therefore which is urged as the grand argument for the excellence of this method, viz.: that it gives deaf mutes an easy method of intercourse with society, is not in any case satisfactorily attained: while with more than three-fourths of this class who need education, it is an utter failure.

6. A large number of teachers is required, and thus the expense of instruction is materially increased.

In all the elementary processes only one pupil can be taught at a time. The teacher must be directly in front of the pupil, and is often obliged to adjust his organs to enable him to utter the proper sound. Hours must sometimes be expended on a single combination, and when the pupil seems to have mastered it, it is easily forgotten, and the lesson must be repeated. The long tedious process of teaching each individual sound and combination and word must be gone over with each pupil, and repeated again and again. Of course the time of a teacher must be fully occupied with a small number of children. Four or five pupils are considered a proper number for one teacher, and eight the maximum. In teaching by signs, instruction can be imparted at the same time to a class of sixteen or twenty pupils. In teaching articulation, at least double the number of teachers is required.

7. Under this system, religious instruction must be deferred to a late period in the course, and religious worship is almost or entirely impossible.

The simplest elements of religious truth can be intelligibly communicated to a child by signs, during the first month of his residence at school, and worship can be conducted through this medium as effectively and with as much power and interest as by any other. We have, however, no hesitation in asserting that to articulate the most simple discourse before an assembly of deaf mutes so as to be understood by any considerable number of them, is entirely impracticable. We are not aware that it is ever attempted, even where articulation is taught, and if it were, it would be to the great portion of those present an unmeaning farce. It should be remembered that the only articulation which a deaf mute can understand is that addressed to him personally. Not the most enthusiastic instructor in articulation claims that a company of deaf mutes can understand an oral address delivered to hearing persons. Even Habermaas, a distinguished deaf-mute teacher, and the most accomplished articulator in Prussia, (who, by the way, was not born deaf and never lost his speech,) confessed himself unable to understand what was said from the pulpit. The necessities of the system forbid the introduction of religious instruction during the early part of the course. In all articulating schools it is deferred till the end of the second year, and in many to the fourth and fifth. This fact, added to the one already mentioned, would of itself constitute a strong objection to the system.

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*Day's Rep., pp. 107, 8.

8. In teaching by articulation, signs are still indispensable.

It has already been remarked that the utterance of sounds conveys no idea. The explosion of words does not explain their meaning. All teachers by articulation are obliged to use signs to explain sounds, and although they desire to drop them as soon as possible, and depend entirely upon speech, yet they find themselves unable to do this. The most distinguished teachers are in the habit of accompanying their lessons with explanatory signs, and without this accompaniment, would, in most cases, be very imperfectly understood. Signs, therefore, so far from impeding the advancement of the pupil, are indispensable to his progress. It is the long time spent upon the sound of the letters and words that is lost to him.

9. The age at which it is found necessary to commence education by articulation, precludes learning a trade.

Instruction in articulation must be commenced early, while the vocal organs are flexible and easily managed. It is generally commenced as early as seven, and some teachers prefer to begin even earlier than this. If instruction is deferred to a much later period, the muscles become rigid and unmanageable, and the labor is greatly increased. At this age, however, not only does the child lack strength of mind to grasp and retain ideas communicated to him, so that much of the labor expended upon him must be lost, but he also lacks strength of body to enter upon a trade. In most schools of this kind, the entire education of the child is completed and he is dismissed, before reaching the proper age for engaging in any kind of handicraft. It is peculiarly difficult for deaf mutes to find persons who will instruct them in the mysteries of a trade, though it is easy for them to obtain employment after they have become good workmen. If they can receive this instruction during the progress of their education, it is a great gain, and the loss of this opportunity, where they must depend upon their own exertions for their support, is a serious matter. It must frequently turn the scale between a reliant self-support, and a servile, life-long dependence.

10. In addition to speaking the words of the language, the deaf mute must acquire the ability to read on the lips.

Even after he has learned to pronounce satisfactorily the sounds and words of the language, he is not by any means restored to free intercourse with society. He can then only make known his wants: he cannot understand what is said to him. If a deaf-mute can communicate his ideas by writing, he can comprehend what is said to him in the same way. Not so with the articulator. He may be able to make himself well understood in addressing others, and yet be entirely in the dark in regard to their reply. In order to understand this, he must learn to read upon the lips, an acquirement more tedious and difficult than learning to speak. It is possible only under the following conditions: 1. There must be a strong light. 2. The speaker must be directly in front, so as to give a distinct view of the vocal organs. 3. He must be near the person addressed: usually five feet is considered the maximum, though some require to be within two or three feet. Pupils, however, can sometimes understand their instructors at a distance of ten or fifteen feet. 4. The words must be slowly and distinctly enunciated, not as in ordinary conversation, but with special reference to the deaf mute alone. When these favorable conditions are realized it is not possible to distinguish every word. All that is ordinarily expected is to catch some prominent words, from which the others may be guessed. Some previous familiarity, also, with the vocal organs of the speaker, and with the subject of discourse, is almost essential. With respect to many words and phrases, abundant repetition is indispensable. Taking into view the conditions demanded on the part of the speaker, and the intense observation and the almost intuitive perception required from those addressed, it is evident that only here and there one of an assembly of deaf mutes could, under the most favorable circumstances, comprehend an oral address. One of the most competent and candid observers, who has personally and thoroughly investigated this subject, after witnessing the exercises of an advanced class who were taught by articulation, gave it as his opinion that about one-third of the pupils understood most of what was said by the teacher; another third lost a considerable part, while the remainder got little or nothing. Yet Dr. Howe makes the astonishing assertion, that if mutes "were taught articulation * * they might attend public worship in our churches, * * most of them would seize the sense and meaning of the sermon, and the intelligent ones would catch enough of the very words of the preacher to understand his discourse."!* Although "thiss tatement is not made hastily, or thoughtlessly," yet words could hardly combine one more at variance with notorious facts. It is not at all pretended that articulating pupils can take part in the conversation of a promiscuous company, even after the severe and double labor of teaching them to pronounce words, and to read them on the lips has been expended upon them.

11. The results of the instruction of deaf mutes by signs, which we constantly witness in Institutions conducted upon this principle, are so far beyond those attained by teachers of articulation, as to partake, in their eyes, of the marvelous.

With all their courtesy, these gentlemen can hardly refrain from denying the truth and reality of these results. In the knowledge of language which our pupils obtain, in their ability to use it readily and elegantly, in the style and accuracy of their compositions, and in their general information, they are incomparably superior to those instructed under the other system. An examination of the compositions appended to the Reports of any of our prominent Institutions will be satisfactory testimony to this point. So decided and strong is this impression, even among teachers of articulation, that the Principal of one of their largest schools in Europe, in conversation with Mr. Weld, did not scruple to deny and to scout the idea that these compositions were the unaided productions of deaf mutes!

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*2d Rep. Board of State Charities, p. 56.

The reasons thus briefly presented—and others might be added—are believed to be sufficient in importance to justify the preference given by the honored Founder of our Asylum, Dr. Gallaudet, to the use of signs as the best method for instructing deaf mutes.

These objections to teaching articulation are inherent in the system, and inseparable from it. No amount of labor, of ingenuity, or of invention, can remove or essentially modify them. Articulation is and must be taught now in the same way that was practiced by the distinguished Founder of the system, in 1750: by the slow and tedious utterance of individual sounds and combinations. It proposes no new processes, it presents no new way of avoiding or of overcoming the formidable obstacles which from the nature of the case it must encounter, and where its work is carefully noted, it must always prove equally imperfect and unsatisfactory. It is, in fact, working against nature.* The deaf mute, in losing his hearing, has lost the power of speech, and the recovery of

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*Diesterweg, who is regarded as the most eminent writer on the education of youth in Germany, has thus expressed his convictions: "Without the most incontrovertible certainty of the most extraordinary benefits, to be obtained in no other way, the exercising (of the deaf and dumb) in articulation would be a terrible infliction. Let the case be considered according to the old proverb: the attempt to expel nature (*naturam furca expellas,* etc.,) is not wont to succeed. Now the question may be asked whether the attempts to force in that to which nature has denied the proper organ, are more successful. I cannot conceal it: I have my doubts."—Day's Rp, pp. 205-6.

the one, and this alone, will in any proper or valuable sense, restore the other. All experience goes to show that unless the hearing is restored, effort to restore the speech, unless in peculiar and exceptional cases, is of very little value, and is not worth the labor that must be expended upon it. Unfortunately, the restoration of hearing to one congenitally deaf, proves to be a work entirely beyond the reach of medical skill. Scarcely a solitary instance is on record in which a person born deaf has been materially relieved by medical art. Only the power that created the sense of hearing can restore it when lost. It is a cause of unspeakable gratitude to God, that the darkness which this misfortune brings upon the mind may be dispelled by education—that this calamity, terrible indeed if it is left undisturbed, is absolutely no bar to the highest mental culture. This miracle is achieved, however, not by instruction in articulation, to the deaf mute always unnatural and distasteful, but by the use of his native pantomime of signs. Under this system, not only do children with active minds obtain an accomplished education, so that their infirmity almost ceases to be felt, but the great mass of those of duller intellects are elevated and enlightened in a corresponding degree. Notwithstanding the disadvantages under which they labor, our pupils do not fear comparison with their brothers and sisters who attend the common schools of the States from which they come, in general information, or in any branch ordinarily included in a common or high school education.

Not only in the higher education obtained, but also in the process of instruction, signs have an immense advantage over articulation. Allusion has already been made to the disagreeable mouthing, the shrill, harsh intonations, the anxious, distressed effort to catch the idea expressed by the rapidly changing organs, the unnumbered repetitions, and the demand for infinite patience which are inseparable from the latter method of teaching. Natural signs, on the contrary, in the hands of a master, are graceful, graphic, and exceedingly effective. They have a peculiar charm, even to those who do not understand their meaning and power. We have never seen assemblies more amused and delighted than by witnessing stories or narratives related by a mute who was an adept in the use of his native language, and we have often seen large audiences thrilled with emotion, and calmed into death-like stillness by the graphic rendering of the Lord's Prayer, in this "eloquent language of silence."

In the Second Annual Report of the Board of State Charities of Massachusetts, drawn up by its chairman, Dr. S. G. Howe, in speaking of the deaf mutes supported by that State in this Institution, serious exceptions are taken to the system of instruction by which they are here educated. While Dr. Howe speaks courteously of the Institution and of its management, and of the general care bestowed upon the pupils, he yet feels obliged to call in question the wisdom and propriety of the whole arrangement. As the identical objections here made, have been repeatedly submitted to the Committees of the Massachusetts Legislature on Humane Institutions, composed of the most able men in the State, and have been met to their satisfaction, they might seem to demand no further attention. As, however, they are again distinctly brought forward, it may be proper to give them a passing notice.

We object entirely to Dr. Howe's placing, as he does, the four hundred deaf mutes of Massachusetts among the "dependent classes." Like other children, they need education. Most of them receive this at the public expense, but the same is true of nineteen-twentieths of the hearing children of the State. From the peculiarity of their deprivation, this education is somewhat more expensive than that given to their more fortunate companions. To just this extent, i.e., in the matter of their education, and no further, are deaf mutes, as a class, dependent. After their education is completed, they are fully able to take care of themselves, and earn their own support, and facts will fully warrant the statement that a smaller proportion of educated deaf mutes will be found the recipients of charity in the Almshouses and Reform Schools of the state, than of any other class of persons.

Nor is there anything so peculiar in the education of the deaf and dumb as to demand the distinctive name of *charity*.

We do not thus term the instruction given children in our common and high schools. The sensible remarks of Dr. Howe, himself, (33d Rep. Inst. for the Blind, p. 20,) respecting blind children, are precisely in point here: "they have the same right to instruction at the hands of the public that other children have, and that instruction should be special, and adapted to their condition. The public places its common school within the reach of every ordinary child; but it cannot place a special school within the reach of every blind child, and therefore compromises by building up one central school, and maintaining the children there. Any indigent person, having a blind child, may send it to the State Institution, without feeling that in the matter of schooling, he is any more the recipient of public charity than are his neighbors who send children to the common school." There is no propriety, therefore, either in regarding deaf mutes as the recipients of special charity, or in including them among the "dependent classes."

This offensive classification pervades the entire Report. Having shown that crowding together vicious, criminal and pauper classes in large establishments, for permanent support, has an unfavorable influence upon their moral and physical development, Dr. Howe advances to the conclusion that the collecting together temporarily, and for the purposes of education, children who happen to be the subjects of some physical deprivation, though under the care of intelligent teachers and encircled with the appliances and comforts of home, must necessarily involve influences, in their measure, equally deleterious. He says that "these infirmities" (deafness and blindness,) "give morbid growth in certain directions, which are strengthened by associating closely and persistently with those having the same infirmity." The most effectual way to counteract these influences, if they exist in the case of deaf mutes, is to educate them, and give them a medium of easy intercourse with hearing persons. It is only where the mute is left in ignorance, and is thus unable to bear his part in general society, that he seeks solely or chiefly the company of those under the same infirmity. Deaf mutes have no desire to be placed in a class by themselves. As Dr. Howe truly remarks, "they cling to ordinary persons and strive to conform themselves to their habits, manners, and even appearance. They wish to look, to act, to be, as much like others as possible." Now, our only object in collecting deaf mutes together in Institutions, is their education, and for this, it is necessary. The special instruction they need cannot be furnished them individually, in the midst of general society. The average time that deaf mutes are under instruction in the Institutions of this country, is less than five years, and of this time from nine to twelve weeks of every year is spent at home in the vacation. To argue that bringing these children together, in such circumstances, for so short a period, and for the purpose of education, is a "segregation" which must exert an unfavorable influence upon their general character, that in this way "the deaf will become more deaf, and the dumb more dumb," is certainly, as Dr. Howe suggests it may be, "spinning theories too fine" for practical utility.

There is another evil to which deaf mutes are exposed, far more formidable than "segregation." It is *isolation.* Activity is the indispensable condition of physical or mental life. If the juices of the body cease to flow, they stagnate. The muscles unmoved palsy and die. So the mind, if unexcited, sinks into imbecility and idiocy. The strongest intellect, shut out from any action or stimulus from other minds, will become demented. The mind can only grow and expand, or maintain healthful action, by excitement from without. The crowning element in the calamity of the uneducated deaf mute is, that, in the midst of society, his misfortune isolates him from it. He is shut up in the darkness of his own dark mind. Living in an atmosphere of light and intelligence, he does not perceive it. Knowledge, and thought, and piety are all around him, but they do not touch his soul. The simple bringing a pupil into an Institution with his mates, aside from the special instruction which he can obtain here, and no where else, is of immense advantage to him, and would be, if he received no instruction at all. It arouses his mind, awakens his sensibilities, opens to him a new world of being, scatters the darkness in which he has so long been groping, and makes him a new man. Nothing in the entire experience of deaf-mute instruction is more striking than the change which comes over a pupil in these respects, after a few months' residence in an Institution. This mutual attrition of mind upon mind, of which the deaf mute has had no experience before, is the only way of exciting his latent powers. The positive benefit received by deaf mutes gathered in a school in this way, with proper supervision, far surpasses any incidental evil that may arise from such association. The evil is too small to be appreciable: the benefits too great to be estimated.

The method proposed by Dr. Howe for avoiding these evils of "segregation," is to board the pupils in private families, if possible, one in a family, and never more than three, gathering them for a few hours each day for instruction. Where could such an arrangement be made? In what community could a hundred deaf-mute children be thus provided for? Who is to control and govern them? Who is to watch over them by day and by night, during the eighteen or nineteen hours they are free from school? The families in which they live are ignorant of their language, and can hold but little communication with them. In most instances, the interest felt in them would be only mercenary. It is enough to say of such a scheme, that it would be utterly impracticable, and if it were not, no judicious parent would commit a child to such an arrangement. Contrast this with the kind and constant supervision of an Institution, extending over every hour of the day and of the night, with the care there bestowed upon the health, habits and morals, the constant intercourse with intelligent persons who fully understand the language of the child, his peculiarities and wants, and whose sole occupation is to attend to his welfare and administer to his need, and the comparative value of the two methods will sufficiently appear. While we agree with Dr. Howe, that deaf mutes should be kept together no more closely and no longer than is necessary for education, we maintain that this can only be effectively and safely imparted by bringing them temporarily into an Institution established to meet their special necessity.

Dr. Howe regards the existence of the "Deaf Mute Christian Association" of Boston as one of the evils of "segregating" our pupils in special Institutions. He says the Society is not founded on sound "sociological principles." This Association is composed of mutes who have been educated, and are now respected and prosperous members of society. With cultivated minds, and professing to be Christian men and women, they wish to enjoy intelligible social religious worship. Their infirmity precludes them from uniting in the worship of hearing and speaking people. Living in a community of hearing persons, laboring in the same workshops, mingling with them in social intercourse during the week, on the Sabbath they assemble by themselves for worship in the language with which they are most familiar; a language whose gracefulness, beauty, and graphic power impresses every beholder. What evils can arise from such an assembly, to which a company of French or Italian citizens, gathered for a similar purpose, would not be exposed, it is not easy to see. We submit, that if such weekly gatherings are not "sociological," they are most commendable to the deaf and dumb, and must exert a happy influence upon their social and moral condition. It would seem that every one who appreciates the depth of their misfortune and understands the nature and object of the Association, should regard it with favor.

The plan for collecting deaf mutes in a distinct community, which Dr. Howe notices as another baneful result of the "segregation" at Hartford, was first suggested and advocated by a semi-mute residing in one of the Southern States. He is an erratic genius, whose mind is filled with many other extravagant projects, some amusing, and others of a somewhat bloody character. As an example of the latter, he held persistently for years that as African slavery was a most bitter curse entailed upon society, from which it was bound to free itself, it could only be effectually accomplished by exterminating the negro, and that this should forthwith be done. The plan of gathering deaf mutes into a separate community, of which they should be the only members, and over which they should have the exclusive control, was, at the time it was proposed, shown by an able writer, himself a deaf mute, to be a utopian, impracticable, undesirable scheme, and has never been regarded with favor by influential persons among them, or by their friends. They desire, as has already been remarked, to make their home in intelligent society, among hearing persons. A petition, however, embracing precisely this plan for organizing a distinct church and society of deaf mutes, was a few years since brought by a respectable citizen of Massachusetts before the Legislature of that State, for its aid and sanction, and was pressed upon its attention for several successive years. It was understood at the time that Dr. Howe warmly favored this movement, and more than once advocated its adoption before a Committee of the Legislature.

But Dr. Howe objects that we do not believe in articulation. Neither do the eminent men who control the Massachusetts General Hospital, believe in the Thompsonian system of Medicine.—But have they ever given it a fair trial?—Is there no other way of deciding upon the value or worthlessness of a system, except by a prolonged trial? Must we make actual test of the Mormon absurdities before rejecting them as vicious and undesirable?—And who is to decide whether these gentlemen are mistaken, or not? Is it a gentleman of another profession, who, however astute and distinguished he may be in his own sphere, has never given this subject his special attention, or shall it be gentlemen who have spent their lives in practical experiment, and in the study of diseases and their proper remedies?—The system of teaching deaf mutes by articulation has been tried by several Institutions in this country, and by all the British schools. Besides, its results have been repeatedly and carefully measured in schools where it has been taught in a language far more favorable for success than the English, and the fact is, that it is not now taught either as the medium or as the end of instruction in a solitary school where the English language is used, with the exception of the London Institution. And with regard to this school, this significant fact may be stated: Mr. Edward Chidley, who was a teacher there twenty years, on being appointed Principal of the Claremont Institution, and being asked by the Directors of that school, whether articulation was to be recommended as a part of the system of instruction, felt obliged to answer in the negative, and it was not introduced.* As far as the English language is concerned, there is no difference of opinion on this subject among practical teachers of the deaf and dumb. The question, indeed, stands about thus:—on the side of educating deaf mutes by signs, we find every teacher in this country, and in the British Isles, with the exception named, and several of these gentlemen have spent nearly forty years in the work of practical instruction;—on the side of teaching by articulation, we find Dr. S. G. Howe, an eminent philanthropist, a gentleman of high culture, and Superintendent of the Asylum for the Blind in South Boston.

It is pleasant to notice that as Dr. Howe's views with regard to the best arrangement for deaf mutes have not been entirely settled in the past, there is reason to hope he may come out right yet. A few years since, he warmly advocated the plan of educating deaf mutes and blind children in one Institution, on the ground that as the blind are intellectually superior, such a union would be especially for the advantage of the deaf mutes. He has since been understood to favor their education "by a new system of dactylology," of his own invention. He at one time advocated removing these children from home influences and associations, at a much earlier period in life than most teachers think judicious. In this Report, he takes the ground that they should not be gathered into Institutions at all.

Dr. Howe objects that our school "is too large, and is constantly growing." Our average number of pupils in 1860, was 222; in 1861, 224; in 1862, 219; in 1863, 218; in 1864, 222; in 1865, 215; in 1866, 212. This does not indicate a very dangerous rate of increase. Our buildings will accommodate comfortably two hundred and fifty pupils, and about our present number is desirable to give the best facilities for classification. Dr. Howe also remarks that the "cost is continually increasing." The expense of educating deaf mutes is considerably more than that of educating speaking children, both from the greater number of teachers and from the peculiar instruction required. It is greater also than that of educating blind children, for as Dr. Howe truly remarks, "the blind need little special instruction; the mutes a great deal." From the opening of the Asylum, in 1817, to 1821, the annual charge was $200 per pupil. From 1821 to 1825, it was $150; from 1825 to 1834, it was $115; from 1834 to 1863, $100; from 1863 to 1865, $125, and in 1866, $175. Although the cost of provisions has increased within the last five years from one hundred and fifty to two hundred per cent., and has not yet materially declined, the Board hope and expect to be able to sustain the Institution at the present rate, and will be happy to diminish the charge as soon as it is proper to do so. Under the circumstances, we do not believe our Patrons will complain either of the past or prospective expense of the education of their deaf mutes.—The Institution for the Blind at South Boston is an admirable one, and is, without doubt, ably and carefully managed. The annual charge there for many years past has been $200 per pupil.

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*Day's 2d Rep., p. 95.

Dr. Howe complains that although our pupils may be well trained intellectually, "they lack the knowledge and familiarity with the thousand duties and occupations of family and social life." Though our children are practiced to some extent in domestic duties, yet as with other children, these are in a measure suspended during the time occupied in their education. In the meantime, they have gained great advantage from travel. They have been out into the great world, and have seen new skies, new scenes, new faces, and their dormant faculties have received an impulse they would never have felt at home. So that by the opportuuity to travel abroad, the deaf mute gains vastly more than he loses by his short absence from domestic scenes and duties. Our pupils also, the Doctor adds, from the vicious education they receive here, "lack self-reliance." As evidence to substantiate this fact, we may take the deaf mutes now residing in the metropolis of Massachusetts, and in its immediate vicinity. According to the census of 1860, there were 48 adult deaf mutes in Boston.

The present number must be somewhat larger, as there are at least 50 members of the "Deaf Mute Christian Association." Of a list of forty-six deaf mutes, which we have before us, residing in or near Boston, twenty are heads of families, numbering from two to seven children, and supporting them comfortably; several not only support themselves but aid their parents; two receive salaries of over $1,500 per annum; another of $1,000. A number are earning from $7.50 to $15, and one, $30 per week, and there are not more than three in the whole number, and these are rather weak minded, who are not by their own efforts earning a comfortable living. Statistics might be brought forward on this point that would delight and astonish the warmest friends of deaf mute education, and prove that the training given in this Institution, and others based upon a similar principle, renders the pupils to a wonderful degree practical and self-reliant. In the actual working of these Institutions, the influences and evils surmised by Dr. Howe, have no place. While they undoubtedly exist in pauper establishments, and in those for the criminal and vicious, to educational Institutions they have no application, except in theories spun so fine, to use the Doctor's own words, that the "tendencies are too slight to be of any account."

Lastly, Dr. Howe regards it as a matter of great importance that the deaf mutes of Massachusetts should be taught within the State. His pertinacity on so small a point as this, would excite surprise, if it was not somewhat amusing. Dr. Howe is the Superintendent of an excellent school for the education of the Blind, in South Boston. He invites and receives blind children from all the other States of New England. He regards his Institution as amply sufficient to meet the wants of all these States, and gives excellent reasons to show that it is for their interest to sustain but one school of this kind within this territory. The Doctor's remarks with regard to the multiplication of schools for the blind, are so pertinent that they will bear quotation. Says Dr. Howe, "some individuals who are moved by a desire to do good, but who are ignorant of the real wants of the blind, and some who are moved by a desire of distinction, or even by less worthy motives, may attempt the establishment of schools in places where they are not really needed,—where they cannot flourish, and where their sickly existence tends to prevent the growth of other establishments. Neverthless, so readily do people respond to any appeal in behalf of the blind, and so easy is it to enlist local prejudice and State pride, that the general interest of the blind is liable to be overlooked, and harm to be done to the cause of education by premature attempts to establish State schools." He also remarks, "it is better for the general cause, and cheaper for individual States, to send their blind children to institutions already established in neighboring States, than to build up new ones." (27th Report Institution for the Blind.) These views are sensible and forcible with regard to schools for the blind; are they not equally so in relation to schools for the deaf and dumb? It is comparatively difficult for blind children to travel in our public conveyances. They are exposed to constant danger, and must always have an attendant. Deaf mutes, however, travel safely to all parts of the country. All the States of New England have adopted this most judicious policy. They send their blind children to Boston, and their deaf mutes to Hartford.

We are not specially sensitive in this matter. We have no hobbies to ride, and no personal ends whatever to gratify. The course of the Asylum, during the nearly fifty years of its history, will show that its Directors and Instructors only desire to promote the best interests of the deaf and dumb. With this view, the Directors have made the large fund committed to their care, the common property of the States of New England. As far as the full enjoyment of its avails are concerned, it belongs to each of these States, in every particular, as much as to the State of Connecticut. It is managed carefully and used freely for their common benefit, and will be, as long as they choose to avail themselves of it. We have no idea that under any circumstances, the people of New England, or of Massachusetts, will allow their deaf mutes to receive only the imperfect and unsatisfactory education that can be obtained through the medium of articulation. These are not the States to go backward towards the dark ages. There are some reasons, and they certainly have no reference to pecuniary emolument, why we desire to educate the deaf mutes of New England. We have ample accommodations and arrangements for this purpose. Our relations to all these States are of the most cordial and friendly character. We have no belief that they will withdraw their children from the Asylum so long as they are well cared for, and well educated, and they are convinced that it is for their interest to allow them to remain. Longer than this, we do not desire to retain them.

The newspapers sent to our pupils during the year have been regularly received, and very welcome. Coming as many do, from the vicinity of their own homes, they serve to keep them acquainted with incidents occurring among their friends, as well as the movements of the great world around them. As aids to mental improvement, their value cannot easily be over estimated.

The accompanying Report of the Physician, Dr. Hunt, gives gratifying evidence of the excellent health which has prevailed in the Institution during the past year. Our grateful acknowledgments are due to the Providence that has so kindly watched over the welfare of our large family during these changing months. May the same kind Providence watch over the interests of the Asylum in the future, as in the past.

COLLINS STONE, Principal.

American Asylum, May 12, 1866.

# REPORT OF THE PHYSICIAN.

*To the Board of Directors of the American Asylum :*

The undersigned respectfully reports that the health of the pupils of the Asylum, during the year just closed, compares very favorably with that of previous ones.

No epidemic influence whatever has manifested itself; the mental and physical vigor of the pupils has been apparently above an average, and very little disease has required professional attention.

With the exception of two cases of typhoid fever of a grave character, which occurred soon after the commencement of the Fall Term, the diseases which have called for medical care have been easily controlled and speedily cured.

Not a death has taken place during the year. Indeed the record of mortality, for the last five years, exhibits but four deaths in an average number of 220 pupils, less than two-fifths of one per cent., while the average mortality of the city during an equal period, has been about 1 to every 66 of our population ; showing the annual death-roll in the town, to be more than three times as great as that at the Asylum. So far as observation indicates, and the foregoing facts serve to establish its correctness—the Hygiene of the Institution is unexceptionable.

The school rooms, work shops and dormitories, in one or the other of which the pupils pass the greater part of their time, when not engaged in their diversions in the open air, are suitably proportioned to the numbers who occupy them ; there is no where excessive crowding, and the arrangements for securing an abundant supply of light and air—those indispensable vitalizers, are adequate for all the purposes of health and enjoyment in their full measure. Suitable arrangements for weekly baths are provided for all the children, and personal cleanliness in its broadest sense is constantly inculcated and observed.

The dietary of the Institution is ample in amount, wholesome and sufficiently varied to meet the requirements of the system, and sustain the usual degree of nervous and muscular vigor ; I know not why I may not say, the highest degree of physical health.

Notwithstanding the special care properly required at the present time, in view of the possible presence of cholera among us at an early day, and perhaps the probable epidemic influence which annually heralds its approach, in no essential particular do I now feel inclined to recommend anything more than the vigorous observance of rules of practice long in force, in the management of the department entrusted to me, being assured both by frequent and careful observations, and the results of a prolonged experience, that nothing of this character is at present demanded.

E. K. HUNT, M. D.

HARTFORD, May 5, 1866.

# APPENDIX.

## I.

## ABSTRACT OF THE TREASURER'S ACCOUNT.

Dr. American Asylum in account with Roland Mather, Treasurer. Cr.

| | | | | | |
|---|---|---|---|---|---|
| 1866. | | | 1865. | | |
| April 1. | To Cash paid Orders of Directing Committee, in favor of Henry Kennedy, Steward, the year past, | $27,944.20 | April 1. | By Cash bal. per account rendered, | $2,148.44 |
| | " " Salaries, | 18,649.40 | 1866.<br>April 1. | " Income from the Fund the year past, | 15,108.44 |
| | " " Insurance, | 195.50 | | " Rent of Dwellings, | 575.00 |
| | " " Sewer Assessments, | 341.04 | | " Pay Pupils, | 2,205.00 |
| | " " Sundry expenses, | 777.67 | | " Received from the six N. E. States, for support of Beneficiaries, | 32,775 50 |
| | " re-invested, "Fund Account," | 61,250.00 | | " Received from Fund Account, | 60,000.00 |
| | " Cash Bal. to Cr. new Account, | 3,654.57 | | | |
| | | $112,812.38 | | | $112,812.38 |

ROLAND MATHER, Treasurer.

Hartford, April 1, 1866.

Examined and found correct. We have, also, this day examined the vouchers for the securities owned by the American Asylum, as per inventory of the Treasurer, and find them to agree with the same.

ERASTUS COLLINS, } *Auditors.*
JONA. B. BUNCE, }

Hartford, May 3, 1866.

## II. STATEMENT

### OF THE FUND OF AMERICAN ASYLUM.

| | |
|---|---|
| Invested in Bank Stocks in Connecticut, - - | $94,100.00 |
| " on Bond and Mortgage of Real Estate, | 54,300.00 |
| " in Rail Road Bonds, - - - - | 19,250.00 |
| " in Real Estate in Hartford, - - | 82,522.88 |
| " in Furniture, - - - - - | 5,390.00 |
| " in U. S. Bonds—7-30ties, - - | 30,000.00 |
| Cash on hand, - - - - - - - - | 3,654.57 |
| | $289,217.45 |

HARTFORD, April 1, 1866.

## III. ABSTRACT OF STEWARD'S ACCOUNT

Dr. *American Asylum in account with*

| | |
|---|---|
| To Butter, | $3,129.13 |
| " Cakes and Crackers, | 7.16 |
| " Charcoal, | 373.57 |
| " Eggs, | 11.25 |
| " Flour, | 2,713.18 |
| " Furniture, | 1,236.75 |
| " Gas and Light, | 891.46 |
| " Groceries, | 1,978.27 |
| " Hard Coal, | 2,421.96 |
| " Hay and Straw, | 180.83 |
| " Live Stock, | 515.00 |
| " Meal, | 47.88 |
| " Meat, Fish and Fowl, | 5,082.32 |
| " Medicine, | 268.39 |
| " Miscellaneous, | 564.30 |
| " Provender and Oats, | 494.50 |
| " Pupils, | 1,693.34 |
| " Repairs and Improvements, | 1,897.57 |
| " Rice and Corn Starch, | 67.94 |
| " Schools and Postage, | 123.67 |
| " Shop, Cabinet, | 1,512.99 |
| " " Shoe, | 2,076.70 |
| " " Tailor, | 553.80 |
| " Tools and Blacksmithing, | 269.25 |
| " Vegetables and Fruits, | 700.34 |
| " Wages, | 3,395.79 |
| " Washing and Soap, | 682.41 |
| " Water, | 116.60 |
| " Wood, | 104.42 |
| " Yeast, | 165.70 |
| Balance to new Account, | 585.24 |
| | $33,861.71 |

## OF CURRENT EXPENSES.

*Henry Kennedy, for the Year ending April* 1, 1866. Cr.

| | | | |
|---|---|---|---|
| By Cash from | Treasurer, | | $28,000.00 |
| " " | State of Maine, for clothing, | | 240.00 |
| " " | " N. Hampshire, for clothing, | | 17.92 |
| " " | " Vermont, | " | 303.21 |
| " " | " Massachusetts, | " | 787.41 |
| " " | " Rhode Island, | " | 52.07 |
| " " | " Connecticut, | " | 324.04 |
| " " | Pupils, | | 1,505.98 |
| " " | Cabinet Shop, | | 628.37 |
| " " | Shoe Shop, | | 387.50 |
| " " | Tailor Shop, | | 28.11 |
| " " | Miscellaneous, | | 1,587.09 |
| | | | $33,861.71 |

HENRY KENNEDY, Steward.

American Asylum, April 1, 1866.

## IV. PAPERS, PERIODICALS, &c.

THE FOLLOWING PAPERS HAVE BEEN SENT TO THE PUPILS GRATUITOUSLY DURING THE PAST YEAR.

| Name. | | Editors and Publishers. | Where Published. |
|---|---|---|---|
| Concord Monitor, | Daily, | Cogswell & Sturtevant, | Concord, N. H. |
| Hartford Courant, | " | A. N. Clark & Co., | Hartford, Conn. |
| Hartford Post, | " | M. M. Eaton, | " " |
| Hartford Press, | " | J. R. Hawley & Co., | " " |
| Hartford Times, | " | Burr Brothers, | " " |
| Ægis and Transcript, | Weekly, | Caleb A. Wall, | Worcester, Mass. |
| American Traveler, | " | Worthington, Flanders & Co., | Boston, Mass. |
| Anamosa Eureka, | " | Edmund Booth, | Anamosa, Iowa. |
| Argus and Patriot, | " | Hiram Atkins, | Montpelier, Vt. |
| Boston Advertiser, | " | Charles Hale & Co., | Boston, Mass. |
| Boston Journal, | " | Charles O. Rogers, | " " |
| Boston Recorder, | " | Revs. E. P. Marvin, J. T. Tucker, | " " |
| Boston Transcript, | " | Henry W. Dutton & Son, | " " |
| Christian Mirror, | " | Charles A. Lord, | Portland, Me. |
| Christian Secretary, | " | E. Cushman, | Hartford, Conn. |
| Christian Watchman & Reflector, | " | Ford, Olmsted & Co., | Boston, Mass. |
| Columbian Register, | " | Osborn & Baldwin, | New Haven, Conn. |
| Congregationalist, | " | Galen, James & Co., | Boston, Mass. |
| Connecticut Courant, | " | A. N. Clark & Co., | Hartford, Conn. |
| Connecticut Herald & Journal, | " | Carrington, Hotchkiss & Co., | New Haven, Ct. |
| Connecticut Press, | " | J. R. Hawley & Co., | Hartford, Conn. |
| Eastern Argus, | " | John M. Adams & Co., | Portland, Me. |
| Gardiner Home Journal, | " | H. K. Morrell, | Hallowell, Me. |
| Hallowell Gazette, | " | Chas. E. Nash, | " " |
| Inquirer and Mirror, | " | Hussey & Robinson, | Nantucket, Mass. |
| Kennebec Journal, | " | Stevens & Sayward, | Augusta, Me. |
| Maine Farmer, | " | True & Boardman, | " " |
| Maine State Press, | " | N. A. Foster & Co., | Portland, Me. |
| Massachusetts Spy, | " | J. D. Baldwin & Co., | Worcester, Mass. |
| Meriden Recorder, | " | Luther J. Riggs, | Meriden, Conn. |
| Mirror and Farmer, | " | John B. Clark, | Manchester, N. H. |
| N. Hampshire Patriot & Gazette, | " | Wm. Butterfield, | Concord, N. H. |
| New Hampshire Statesman, | " | McFarland & Jenks, | " " |
| New Haven Palladium, | " | F. W. J. Sizer & Co., | New Haven, Conn. |
| New London Chronicle, | " | Samuel Cox, | New London, Conn. |
| New London Democrat, | " | D. S. Ruddock, | " " |
| Newport Express, | " | Simonds & Cummings, | Newport, Vt. |
| New York Evangelist, | " | Field & Craighead, | New York, N. Y. |
| New York Spectator, | Semi-Weekly, | | " " |
| New York State Radii, | Weekly, | Levi S. Backus, | Canajoharie, " |
| Northampton Free Press, | S-Weekly, | Albert R. Parsons, | Northampton, Mass. |
| Norwich Aurora, | Weekly, | John W. Stedman, | Norwich, Conn. |
| Norwich Courier, | " | Bulletin Association, | " " |
| Palmer Journal, | " | Gordon M. Fisk & Co., | Palmer, Mass. |
| Phrenological Journal, | Monthly, | Fowler & Wells, | New York City. |
| Portland Advertiser, | Weekly, | Smith & Wiltham, | Portland, Me. |
| Portland Transcript, | " | Elwell, Pickard & Co., | " " |
| Providence Journal, | " | Knowles, Anthony & Danielson, | Providence, R.I. |
| Religious Herald, | " | D. B. Moseley, | Hartford, Conn. |
| Republican Standard, | " | John D. Candee, | Bridgeport, " |
| Springfield Republican, | " | Samuel Bowles & Co., | Springfield, Mass. |
| Union Democrat, | " | Campbell & Hanscom, | Manchester, N. H. |
| Vermont Christian Messenger, | " | C. W. Willard, | Montpelier, Vt. |
| Vt. Watchman & State Journal, | " | E. P. Walton, | Montpelier, Vt. |
| Vox Populi, | " | Stone & Huse, | Lowell, Mass. |
| Worcester Palladium, | " | J. S. C. Knowlton, | Worcester, Mass. |
| Zion's Herald, | " | Franklin Rand, | Boston, Mass. |

We are also indebted to Hon. L. S. Foster, and to Hon. H. C. Deming, for valuable Congressional Documents.

COLLINS STONE, Principal.

# V.

# LIST OF PUPILS

IN THE SCHOOL WITHIN THE YEAR ENDING ON THE 12TH OF MAY, 1866.

## MALES.

| Name. | Residence. | Admission. |
|---|---|---|
| Abbott, John W. | Sidney, Me., | Sept., 1865 |
| Abbott, William W. | Northumberland, N. H., | Sept., 1861 |
| Acheson, Charles | West Randolph, Mass., | Sept., 1864 |
| Acheson, George W. | West Randolph, Mass., | Sept., 1864 |
| Aldrich, Erwin E. | Smithfield, Rhode Island, | Sept., 1864 |
| Allen, Jonas R. | Hardwick, Mass., | Sept., 1864 |
| Baker, Selem A. | South Yarmouth, Mass., | Sept., 1859 |
| Baldwin, Charles F. | Litchfield, Conn., | Sept., 1864 |
| Barrett, William S. | Plymouth, Mass., | Sept., 1865 |
| Bastinella, Oliver | Pittsfield, Mass., | Sept., 1865 |
| Berry, George A. | Vienna, Maine, | Oct., 1859 |
| Bird, William L. | Naugatuck, Conn., | Sept., 1858 |
| Blakeley, Harvey H. | Roxbury, Conn., | Sept., 1859 |
| Blood, Charles H. | Fitchburgh, Mass., | Sept., 1859 |
| Bond, Thomas S. | Hartford, Conn., | Sept., 1860 |
| Bowden, John | Marblehead, Mass., | Sept., 1861 |
| Boyington, George W. | Prentiss, Maine, | Nov., 1860 |
| Brennan, Joseph | Stafford Springs, Conn., | Sept., 1857 |
| Brown, Byron A. | Exeter, Maine, | Sept., 1859 |
| Buck, Cyrus F. | Enfield, Maine, | Sept., 1860 |
| Butler, John | East Boston, Mass., | Sept., 1863 |
| Butts, William H. | Warren, R. I., | Sept., 1860 |
| Cary, Daniel W. | Gardiner, Maine, | Sept., 1860 |
| Chapman, Albert W. | Cambridgeport, Mass., | Sept., 1865 |
| Chapman, Henry A. | Salem, Mass., | Sept., 1859 |
| Clark, John | Bridgewater, Mass., | Sept., 1865 |
| Collins, Thomas | Brandon, Vermont, | Sept., 1859 |
| Conley, James | Newport, R. I., | Oct., 1861 |
| Conners, John J. | Mansfield, Mass., | Sept., 1865 |
| Cook, Thomas | Portland, Me., | Sept., 1865 |

| Name. | Residence. | Admission. |
|---|---|---|
| Coolidge, Orrin G | Andover, Vt., | Sept., 1860 |
| Coughlin, William | Fitchburg, Mass., | Sept., 1862 |
| Crandall, William F. | Newport, R. I., | Sept., 1860 |
| Cronan, Stephen | Fitchburg, Mass., | Sept., 1862 |
| Cross, Samuel S | Beverly, Mass., | Sept., 1864 |
| Cummings, Daniel | Greenville, Conn., | Sept., 1864 |
| Cutter, George F. | Irasburgh, Vt., | Sept., 1865 |
| Damon, Frank C | Amherst, N. H., | Sept., 1861 |
| Davis, Zachary T. | North Stonington, Conn., | Sept., 1857 |
| Day, Myron W | South Royalston, Mass., | Sept., 1864 |
| Deering, William A. | Richmond, Maine, | Sept., 1859 |
| Derby, Ira H. | South Weymouth, Mass., | Sept., 1861 |
| Dickson, Charles A. S. | Chelsea, Mass., | Sept., 1859 |
| Dougherty, Charles | Hartford, Conn., | Sept., 1863 |
| Drew, Frank H. | Boston, Mass., | Sept., 1865 |
| Drown, Carlos | Brownington, Vermont, | Sept., 1861 |
| Drown, John | Brownington, Vermont, | Nov., 1859 |
| Duran, Edward. | South Boston, | Sept., 1865 |
| Duran, Thomas | South Boston, | Sept., 1865 |
| Ellis, Manford | Belgrade, Maine, | Sept., 1864 |
| Erbe, Hermann. | Southington, Conn., | Sept., 1865 |
| Evans, Oscar H | South Royalston, Mass., | Sept., 1861 |
| Fahy, Thomas | Pittsfield, Mass., | Sept., 1862 |
| Ferris, John | Waitsfield, Vermont, | Dec., 1862 |
| Fifield, Oscar W | Deer Isle, Maine, | Nov., 1862 |
| Fish, Charles | Danby, Vt., | Sept., 1865 |
| Fitch, Henry H | Preston, Conn., | Sept., 1860 |
| Freallick, James F | Provincetown, Mass., | Sept., 1865 |
| Frost, Edwin F | Boston, Mass., | Sept., 1861 |
| Gale, Arthur F | Charlton, Mass., | Sept., 1863 |
| Gambol, John | South Boston, Mass., | Oct., 1864 |
| Gardner, William M | Hardwick, Mass., | Sept., 1864 |
| Greene, Samuel T. | N. Waterford, Maine, | Sept., 1855 |
| Hadley, James | Waltham, Mass., | Sept., 1859 |
| Halsey, Waldron H. | Newark, N. J., | Nov., 1863 |
| Hanson, Joseph W. | Barrington, N. H., | Oct., 1860 |
| Harris, Alvah H | Neponset, Mass., | Oct., 1863 |
| Hasty, Albert J. | Winslow, Maine, | Sept., 1861 |
| Hawley, Levi R. | North Amherst, Mass., | Sept., 1865 |

| Name. | Residence. | Admission. |
|---|---|---|
| Hawley, Lewis N | North Amherst, Mass., | Sept., 1865 |
| Hayden, Othello D | Stoughton, Mass., | Sept., 1863 |
| Hayward, Frederick A. | Easton, Mass., | Nov., 1862 |
| Helfpenny, Martin, | Waterbury, Conn., | Sept., 1864 |
| Herrick, Caleb H. | Haverhill, Mass., | Sept., 1859 |
| Hill, Willie L. | Athol Depot, Mass., | Sept., 1864 |
| Houghton, Louis A | Springfield, Mass., | Sept., 1857 |
| Hudson, George E. | Fitchburg, Mass., | Nov., 1859 |
| Jellison, Simon | Monroe, Me., | Sept., 1865 |
| Johnson, George D | Gill, Mass., | Sept., 1862 |
| Josselyn, Andrew P. | East Foxboro, Mass., | Sept., 1863 |
| Keefe, Thomas | Lawrence, Mass., | Sept., 1859 |
| Kendall, Philip | Whitefield, Me., | Sept., 1865 |
| Kennedy, Frederick O. | Sheepscott Bridge, Me., | Sept., 1862 |
| King, James H. | Middletown Point, N. J. | Sept., 1865 |
| Ladue, Edward | St. Albans, Vermont, | Sept., 1864 |
| Leary, Matthew | Boston, Mass., | Sept., 1863 |
| Livingston, Robert D. | Manchester, N. H., | Sept., 1856 |
| Mackintosh, George | Canton, Mass., | Sept., 1864 |
| Marston, Westley N. | Greenland, N. H., | Sept., 1864 |
| Martin, Charles H. | Salem, Mass., | Sept., 1863 |
| Mayhew, Jared | Chilmark, Mass., | Sept., 1864 |
| Mayo, Hawes, | Monroe, Me., | Sept., 1865 |
| McCarty, John | Andover, Mass., | Sept., 1865 |
| McDonnell, John | West Stockbridge, Mass., | Sept., 1865 |
| McGirr, Francis | East Cambridge, Mass., | Sept., 1863 |
| McKinney, Wm. J. | Alleghany City, Pa., | Sept., 1865 |
| McMaster, Hugh H. B. | Pittsburgh, Penn., | Sept., 1864 |
| McMechen, James H. | Wheeling, West Virginia, | Aug., 1865 |
| Meagher Michael | Waterbury, Conn., | Sept., 1865 |
| Miller, George | Providence, R. I., | Sept., 1861 |
| Moodie, David | East Craftsbury, Vt., | Sept., 1858 |
| Moodie, Thomas | East Craftsbury, Vt., | Sept., 1858 |
| Morrell, Leland | Cornish, Me., | Sept., 1865 |
| Moseley, Joseph A. | Pomfret, Conn., | Sept., 1862 |
| Moulton, Thomas | Buxton Center, Mass., | Sept., 1864 |
| Muth, John | Hartford, Conn., | Sept., 1865 |
| Nelson, James | Tewksbury, Mass., | Sept., 1864 |
| Newhall, George A. | Melrose, Mass., | Sept., 1858 |

| Name. | Residence. | Admission. |
|---|---|---|
| Norcross, Alphonso M | Norwich, Conn., | Sept., 1857 |
| O'Harra John | Milford, Mass., | Sept., 1860 |
| Ould, Edward C. | Derby, Conn., | Sept., 1861 |
| Page, Roscoe G. | Augusta, Maine, | Sept., 1860 |
| Parkinson, Joseph G. | Randolph, Vermont, | Sept., 1861 |
| Patterson, Charles | Saco, Maine, | Sept., 1864 |
| Peterson, Willie S. H | South Plymouth, Mass., | Sept., 1862 |
| Philbrook, Henry O. | Charlestown,Mass., | Sept., 1864 |
| Pick, William C. | Providence, R. I., | April, 1863 |
| Plaisted, Samuel S. | Limerick, Maine, | Sept., 1859 |
| Pond, Nathan L. | Milford, Mass., | Sept., 1862 |
| Porter, Wendell P. | Somerville, Mass., | Nov., 1858 |
| Powers, James | Boston, Mass., | Sept., 1865 |
| Powers, James A. | Salem, Mass., | Mar., 1862 |
| Pratt, John W | Middletown, Conn., | Sept., 1861 |
| Pray, Winfield S | Great Falls, N. H., | Sept., 1854 |
| Quincy, Josiah, | Bridgewater, Mass., | Sept., 1865 |
| Reynolds, Frank B. | Thompson, Conn., | Sept., 1857 |
| Rice, William F. | Bangor, Maine, | Sept., 1859 |
| Richmond, Ephraim H. | Voluntown, Conn., | Sept., 1865 |
| Rideout, Charles H | Houlton, Maine, | Sept., 1863 |
| Ryan, John | Rutland, Vt., | Sept., 1865 |
| Sachse, Charles F. | Waterbury, Conn., | Sept., 1861 |
| Sackett, Charles E. | South Glastenbury, Conn., | Sept., 1865 |
| Scoles, William M. | Augusta, Maine., | Sept., 1863 |
| Sharts, Herman H. | Hudson, N. Y., | Sept., 1865 |
| Slattery, Patrick | Boston, Mass., | Sept., 1862 |
| Small, Albert A. | Auburn, Maine, | Sept., 1863 |
| Small, Ashley B. | Bowdoinham, Maine, | Sept., 1860 |
| Small, George B | Hartland, Vt., | Sept., 1865 |
| Small, Marshall H. | Bowdoinham, Maine, | Sept., 1860 |
| Small, Walter R. | Hartland, Vermont, | Oct., 1862 |
| Smith, Freeman N. | Chilmark, Mass. | Sept., 1861 |
| Smith, George | Springfield, Mass., | Sept., 1864 |
| Smith, Orlando A. | Roxbury, Mass., | Sept., 1863 |
| Soper, Isaac N | Lowell, Mass., | Sept., 1861 |
| Sparrow, Wilber N. | Eastham, Mass., | Sept., 1864 |
| Stillman, Henry D. | Cumberland Hill, R. I., | Oct., 1861 |
| Sullivan, Patrick | North Providence, R. I., | Sept., 1858 |

| Name. | Residence. | Admission. |
|---|---|---|
| Sullivan, Patrick J. | Boston, Mass., | Sept., 1860 |
| Sykes, John C. | Millville, Mass., | Sept., 1858 |
| Tasker, Frank C. | Providence, R. I., | Nov., 1860 |
| Thompson, Frank B. | Newark, N. J., | Oct., 1863 |
| Tuck, Louis C. | Beverly, Mass., | Sept., 1862 |
| Tufts, Samuel A. | Malden, Mass., | Sept., 1865 |
| Tuttle, Jacob E. | Antrim, N. H., | Sept., 1860 |
| Walker, Freddie | Norwich, Conn., | Sept., 1864 |
| Wass, Francis N. | Addison, Maine, | Sept., 1858 |
| Waters, Warren L. | Hartford, Conn., | Sept., 1865 |
| Watts, Francis A. | Rockville, Conn., | Sept., 1860 |
| Webb, Clarence A. | Canterbury, Conn., | Sept., 1864 |
| Wellington, Elbridge A. | Wayland, Mass., | Sept., 1863 |
| Wentworth, SylvesterW | Ipswich, Mass., | Sept., 1864 |
| West, George | Chilmark, Mass., | Sept., 1861 |
| Wheeler, Staunton F. | Plymouth, Vermont, | Sept., 1863 |
| White, Lorin F. | Andover, Conn., | Sept., 1859 |
| Wilkinson, John | West Lubec, Maine, | Sept., 1861 |
| Wood, Eugene W. | Webster, Mass., | Sept., 1861 |
| Young, William F. | Boston, Mass., | Sept., 1861 |

## FEMALES.

| | | |
|---|---|---|
| Annan, Josephine A. | Manchester, N. H., | Sept., 1864 |
| Atkins, Sylvia B. | Chatham, Mass., | Sept., 1862 |
| Bailey, Martha J. | Swanzey, N. H., | Sept., 1860 |
| Barnard, Adda J. | Lowell, Mass., | Sept., 1865 |
| Bartholomew, Cornelia G. | New Haven, Conn., | Sept., 1854 |
| Bennett, Lenora | Searsmont, Maine, | Sept., 1859 |
| Bickford, Sarah K. | Belgrade, Maine, | Sept., 1860 |
| Bliss, Fannie K. | Warren, Mass., | Sept., 1861 |
| Bond, Julia P. | Hartford, Conn., | June, 1865 |
| Bragg, Lucy A. | South Kent, Conn., | Sept., 1863 |
| Brown, Emily C. | North Stonington, Conn., | Sept., 1864 |
| Brown, Susan F. | North Dunbarton, N. H., | Nov., 1865 |
| Calhan, Margaret | Cambridge, Mass., | Sept., 1858 |

| Name. | Residence. | Admission. |
|---|---|---|
| Campbell, Elizabeth | Boston, Mass., | Nov., 1859 |
| Carey, Mary | Boston, Mass., | Sept., 1863 |
| Carpenter, Emily J | Warren, Mass., | Sept., 1859 |
| Chaffin, Abbie L | Worcester, Mass., | Sept., 1865 |
| Champion, Ellen J. | Westmore, Vermont, | Sept., 1863 |
| Child, Chloe W | Bath, N. H., | Nov., 1858 |
| Cisco, Susan J | New Haven, Conn., | Sept., 1861 |
| Clapp, Elmina D | Newburgh, N. Y., | Sept., 1860 |
| Colley, Mary E | Falmouth, Maine, | Oct., 1862 |
| Corcoran, Ellen | East Boston, Mass., | Nov., 1865 |
| Daley, Nancy J | Chester, Conn., | Sept., 1865 |
| Daniels, Abbey J | New London, Conn., | Sept., 1857 |
| Davis, Ellen M | Rockport, Mass., | Sept., 1860 |
| Derby, Olive A | South Weymouth, Mass., | Sept., 1861 |
| Dewsnap, Clara | Lakeville, Conn., | Jan., 1863 |
| Driscoll, Julia A | East Boston, Mass., | Nov., 1865 |
| Dudley, Etta T. B. | Northampton, Mass., | Sept., 1864 |
| Durbrow, Carrie B | New York City, | Oct., 1863 |
| Eaton, Mary E. | East Salisbury, Mass., | Sept., 1863 |
| Emerson, Gertrude A | Danby, Vermont, | May, 1864 |
| Fahy, Bridget | Pittsfield, Mass., | Sept., 1864 |
| Flagg, Clarinda J | Natick, Mass., | Sept., 1862 |
| Foley, Bridget | Bristol, Conn., | Sept., 1863 |
| Foley, Mary A. | Bristol Conn., | Sept., 1863 |
| Foster, Lucy M. | South Coventry, Conn., | Dec., 1864 |
| Frost, Harriet E | Bucksport, Maine, | Sept., 1865 |
| Gardner, Rosa | Greeneville, Conn., | Sept., 1859 |
| Gray, Leonora C | New Haven, Conn., | Sept., 1864 |
| Hall, Elizabeth | Portland, Maine, | Sept., 1863 |
| Harrington, Sarah J | Edgecombe, Maine, | Sept., 1859 |
| Hartshorn, Anna S | Boston, Mass., | Sept., 1865 |
| Hartt, Cora E | Auburn, Mass., | Sept., 1859 |
| Haskell, Mary E | Portland, Maine, | Sept., 1858 |
| Hayward, Laura A | South Easton, Mass., | Nov., 1862 |
| Hichens, Mary W | Wellfleet, Mass., | Sept., 1861 |
| Howe, Eldora M | Marlboro, Mass., | Sept., 1861 |
| Hull, Ida A | Plainville, Conn., | Sept., 1864 |
| Jenks, Matilda | Portsmouth, N. H., | Sept., 1862 |
| Knapp, Sophia A | Winchester, N. H., | Sept., 1861 |

| Name. | Residence. | Admission. |
|---|---|---|
| Lee, Mary J | East Longmeadow, Mass., | Sept., 1864 |
| Lovejoy, Abby S | Sidney, Maine, | Nov., 1860 |
| Lynch, Margaret | Tewksbury, Mass., | Sept., 1864 |
| Lynes, Ellen | Ludlow, Mass., | Sept., 1864 |
| Marks, Sarah C | Providence, R. I., | Nov., 1863 |
| Mason, Flora S | Bangor, Maine, | Sept., 1865 |
| Mattson, Elizabeth | New York City, | Oct., 1865 |
| McClure, Sophronia N | South Ryegate, Vermont, | Feb., 1859 |
| McDonough, Elizabeth A. | North Blandford, Mass., | Oct., 1864 |
| McKay, Mary A | River Point, R. I., | Feb., 1862 |
| Merrill, Anna M | Lake Village, N. H., | Oct., 1862 |
| Merrill, Frances J | Skowhegan, Maine, | Sept., 1864 |
| Milan, Catharine | Milford, Mass., | Sept., 1865 |
| Miller, Catharine W | Thompsonville, Conn., | Sept., 1862 |
| Moore, Eliza A | Derby, Conn., | Sept., 1863 |
| Moulton, Florette | Biddeford, Maine, | Sept., 1864 |
| Mulachy, Mary E | Salem, Mass., | Sept., 1865 |
| Munroe, Betsey A. | Rehoboth, Mass., | Sept., 1862 |
| Murphy, Mary E | Boston, Mass., | Sept., 1862 |
| Nichols, Marietta C | Roxbury, Mass., | Sept., 1865 |
| O'Brien, Mary | East Cambridge, Mass., | Sept., 1865 |
| O'Donnell, Catharine | Stonington, Conn., | Sept., 1860 |
| O'Hearn, Eliza | Tewksbury, Mass., | Sept., 1864 |
| O'Neal, Mary A | Boston, Mass., | June, 1859 |
| Peltier, Ella M | Cambridge, Mass., | Sept., 1863 |
| Plaisted, Mary M | Limerick, Maine, | Sept., 1859 |
| Platt, Sarah E | Hinsdale, Mass., | Sept., 1865 |
| Prince, Mary E | Camden, Maine, | Sept., 1860 |
| Putnam, Almedia M | Oxford, Maine, | May, 1862 |
| Quinn, Mary A. | Hartford, Conn., | Sept., 1861 |
| Richardson, Lauretta J | Mansfield, Mass | Sept., 1862 |
| Robinson, Hattie J | Freedom,Maine, | Sept., 1853 |
| Rogers, Georgiana F | Montville, Conn., | Sept., 1857 |
| Rounds, Sylvia D | Greene. R. I., | Sept., 1862 |
| Sanders, Clara L | Bethel, Vermont | Sept., 1864 |
| Scoles, Rachael A | Augusta, Maine, | Sept., 1864 |
| Small, Elizabeth F | North Truro, Mass., | Sept., 1856 |
| Small, Frances E | Auburn, Maine, | Sept., 1863 |
| Smith, Mary J | East Hartford, Conn., | Sept., 1865 |

| Name. | Residence. | Admission. |
|---|---|---|
| Smyth, Emma M | Newport, R. I., | Sept., 1857 |
| Somes, Harriet J | Lowell, Mass., | May, 1859 |
| Spillane, Mary | East Boston, Mass., | Nov., 1865 |
| Stoffel, Anna M. | New Haven, Conn., | Sept., 1859 |
| Stone, Sally E | Natick, Mass., | Sept., 1865 |
| Swett, Persis H. | Henniker, N.H., | Oct., 1863 |
| Taft, Marion L. | Worcester, Mass., | Sept., 1864 |
| Taylor, Sarah | Cambridge, Mass., | Sept., 1860 |
| Teele, Sarah F. | Somerville, Mass., | Sept., 1862 |
| Terry, Marion S | West Randolph, Vt., | Sept., 1860 |
| Thayer, Emeline | Warren, Vt., | Nov., 1859 |
| Tilton, Ellen L. | Cheshire, Mass., | Sept., 1864 |
| Vincent, Emma A. | South Adams, Mass., | Sept., 1863 |
| Westgate, Abby | Warren, R. I., | Sept., 1864 |
| Williams, Frances A. | Lawrence, Mass | Sept., 1861 |
| Williamson, Etta J | Rockland, Maine, | Oct., 1859 |
| Wood, Welthy A. | Thomaston, Conn., | Sept., 1857 |
| York, Melissa J. | Gilmanton, N.H | Sept., 1864 |

## SUMMARY.

| | Males. | Females. | Total. |
|---|---|---|---|
| Supported by Friends, | 11 | 8 | 19 |
| " Maine, | 27 | 17 | 44 |
| " New Hampshire, | 7 | 8 | 15 |
| " Vermont, | 15 | 6 | 21 |
| " Massachusetts, | 70 | 44 | 114 |
| " Rhode Island, | 9 | 5 | 14 |
| " Connecticut, | 27 | 21 | 48 |
| " New Jersey, | 2 | | 2 |
| | 168 | 109 | 277 |

| | |
|---|---|
| Whole number within the year, | 277 |
| Greatest number in attendance at any one time, | 215 |
| Average attendance during the year, | 212 |

# COMPOSITIONS.

It is a rule of the school that specimens of composition published in our annual Reports, and also the letters sent at stated times to the friends of our pupils, shall receive no correction, except such as their respective authors can make on a careful review when the errors they contain are pointed out by a teacher. The following are prepared in accordance with this rule:

### A LION.

A strong lion runs on the ground. He runs and roars at a man. He eats a large piece of meat. He drinks the water. He watches and catches a boy. He sees a young whelp. He lies down. He is white and gray. He is hungry. He plays with the whelp. He runs, watches, and catches a cow. He fights a large tiger. He kills the large tiger.

W. L. W.

Born deaf. In school eight months.

### A ROBIN.

A pretty robin sits on a tree. The robin sings. The robin eats a cherry. The robin sits on a fence. The robin eats a worm. The robin makes a nest. The robin lays an egg. The robin sits on the nest. The robin hatches three eggs. The robin feeds the little ones. The little birds grow and soon fly away.

G. F. C.

Born deaf. In school eight months.

### A VERY BAD WOMAN.

Mr. P. lives in Cleveland. He does not love his wife. A few days ago he ate breakfast with his family. His wife poured out a cup of tea. She gave it to Mr. P. He did not want it. He gave it to his little girl. His wife snatched it away from the little girl. She had put some arsenic with the tea. She wanted to kill Mr. P. She did not want to kill her little girl. She was a very bad woman.

L. C. G.

Born deaf. In school two years.

## STORIES.

Once a man was going through the woods. He heard a lion roaring. He began to run. The lion saw him and ran after him. The man jumped over the edge of a precipice. He put his hat and coat on his cane. He held up the cane. The lion thought it was the man. He jumped into it. He fell over the precipice and was killed. The man was glad. He went home.

Last winter two boys went to skate on the little river. The ice was weak. The boys did not know it was weak. They broke through the ice and were drowned. After some time a soldier saw two hats floating on the water. He searched the bottom of the river. He found their bodies. A man carried them home in a sleigh. Their parents were very sorry. If they were good boys their souls went to heaven.

C. A. W.

Lost hearing at seven. In school two years.

Dr. A. was a queer old man. He always carried his medicine-case in his coat-pocket. One evening he went to a party. He sat down in a chair. He began to talk with some ladies. Pretty soon he fell over backwards. He broke a bottle of asafetida. The gentlemen and all smelled it. They knew it was in Dr. A's coat-pocket. They laughed very much about it. He was very much ashamed. He went home immediately.

H. H. B. McM.

Lost hearing at two and a half years. In school two years.

## SPORTING.

A young gentleman took his gun and powder-horn. He loaded the gun. He called his young dog. The dog walked with the man through the woods near the sea. He saw some gulls flying up. They were flying and diving in the sea to catch herring. He shot and hit one. It fell into the sea. He rowed in the boat. He took the gull in the boat. He loaded the gun again. He rowed in the boat again. He saw a wild goose in the sea. It loved to swim in the sea. He hid behind the bushes and shot and hit it. The young dog swam in the sea and caught the goose. The young dog carried the goose to the young gentleman. He put the wild goose in the bag. He loaded the gun again. He walked to his house. He put his gun and powder horn away. He gave the wild goose and gull to his wife. His wife picked them. His wife cooked them for dinner and supper.

J. B.

Lost hearing at three months. In school three years.

### EARLY RECOLLECTIONS.

When I was an infant, I lay in a cradle near the stove, and my mother told my uncle to keep me in the cradle. He said yes. In the morning my mother went down cellar to get some potatoes for breakfast. My uncle went without me and fed his fowls with meal. My mother came up stairs and then she saw me falling upon the stove. Just then, she threw her basin of potatoes on the floor, and then she took me up from the stove. She was very sorry and put some water on my temple. It was very painful. My mother was somewhat angry and advised my uncle. My temple got better. I grew up and forgave my uncle. I have a scar on my temple now. I am very sorry that it is a mark on my temple. When I was two or three years old, I played on the floor with the doll. My mother looked about beans without dust for Sunday morning to eat. She was careless and some beans fell down on the floor. I saw them on the floor and put one of them into my right ear. In the evening I went to bed. I had no good sleep. I said to my mother my ear was very painful. She did not know that I put a bean in my ear. She went and called a doctor and came home. He saw the bean in my ear and took a half of the bean out of my ear. I cried aloud but the doctor told me that I can be patient. He could not take the other of the bean out of my ear. He was very sorry and went home. In the days I became deaf and dumb. I think that I got deaf and dumb from it or the measles. My parents resolved me that I came here from home. Mr. K. is my teacher in the sixth class. My parents are deaf and dumb. My father learned in Hartford. My mother learned in New York. They have five children except two children are dead. I think they are in heaven. I must try to be a good and Christian girl now. I kept an account of my early life in my memory since what I did any thing.

P. H. S.

Lost hearing at two years. In school three years.

## GOD.

God is infinitely wise, who is our kind Father, and He wishes us to be happy. He was never born, but has lived in Heaven always. God will never die, but we must die when He calls us to stop living, and He wishes us to go to Heaven and live with Jesus eternally. God is most powerful, who caused the heaven, the earth, the stars, the sun and moon to come into existence by a word. He formed Adam from the dust, and he was happy to go about the garden, when he fell asleep, and God took one of his ribs, and He created Eve. When Adam awoke, he did not know her, but was glad to meet her. Adam pleasantly took a walk with Eve about the garden, to see the various flowers and trees. We wonder at the infinite wisdom of God, who caused Adam and Eve to live, the flowers and the trees to grow. There are a great many people who hear the birds sing, but we cannot hear them. God created the different flowers, which the rich gentlemen and pretty ladies cannot excel in their dress. God gave us them to please us. We like to see the grass and flowers, and wonder that God created so many things for our comfort.

God makes us to improve, and lets us learn the Bibles and other books. We pity the ignorant men in Africa and Asia, because they have no books nor Bibles. We often thank Him because He gives them to learn. God will destroy the earth by fire. Then He will judge the people.

J. A. M.

Lost hearing at three years. In school four years.

## BODY AND SOUL.

Man has a body and a soul. The body is the house of the soul for its defence. It is made of dust, being created by Almighty God. It has a heart that is a wonderful piece of machinery. It has lungs for breathing. The body has two eyes, that are very wonderful for seeing. It has bones. They make the body upright. The body is covered with flesh and skin, to defend it from any injury. The body has arteries that always convey new blood from its heart to all parts of the body. The arteries ought to be very carefully defended from any injury, and are generally lying buried with the deep muscles. If a man cuts his artery, he will bleed to death. When you place your finger on an artery, you will feel that it springs. If the body has no blood, it cannot live. All the parts of the body are held together by a fine membrane, which is called cellular membrane, as it is made up of a number of small cells. Every body has a stomach, which is a hollow bag, and is placed just below the breast-bone, lying partly across the body. The stomach is used to receive the food, and then digest it and change it into new blood that passes into all parts of the body. The body has a head that grows hair, but the soul is in the head for the purpose of thinking, hoping and writing. If the body has no soul, it would not be useful, but ignorant. The soul was obtained from God, and He made the soul to live in the body. If man has no soul, he cannot live. The soul has mind. The soul makes the mind strong. If man has no soul, he has no mind to act. Which do you think is the best, the body or the soul? I am going to tell you about the difference between the body and the soul. The body will decay when it is dead and buried in the grave, but the soul, when the body dies, flies to Heaven, and lives in an everlasting life with much happiness; however, be careful those who do not keep their souls, for they will lose their souls, and will be cast into hell, with much unhappiness forever and ever. The soul is worth many billions of money, but the body is not so, for it is made of dust. Be grateful to God for His great kindness for giving man a soul to live forever and ever.

## ONE HUNDRED YEARS AGO.

One hundred years ago, we had no gas for the purpose of giving us good light, so that we could not easily see, read books, write and walk in the night. Of what is gas made? It is made from coal being heated and melted in a large gas-house in the city, and flows into iron pipes, and extends to every house, to give it good light, so that we can see to write and read books and walk in the night. About 100 years ago, we had many oil lamps and candles to use for light. The light of candles and oil lamps is not very good, but we have the gas for light at present. The poor light of candles and oil lamps often injures our eyes while reading in the night, but the gas never injures our eyes on account of its good light. People who live in the city always have the gas for light; however, those who live in the country have candles and kerosene oil lamps for light. The gas is more expensive than candles and oil.

One hundred years ago, we had no magnetic telegraphs. A magnetic telegraph is a large wire fixed on large posts, extending a long distance, for the purpose of telling the people about the news. A wise man by the name of S. F. B. Morse, of Massachusetts, invented the magnetic telegraphs which were first fixed from Baltimore to Washington. Some years after, the people began to engage in making the telegraphs. There are a great many telegraphs in the world. Mr. Morse was honored by the world, for he was a telegraph inventor.

One hundred years ago, we had no railroads in the United States, or the world. By-and-by, a poor man, but wise, by the name of Mr. Stephenson, invented the railroad. Some men made cars and put them on the railroads, with a locomotive that drew the cars to run on the railroads quickly. The steam made the cars and locomotives run. People ride in the cars from one place to another place quickly in a short time. Passengers are made for people to ride, but the freight cars for conveying many heavy boxes and barrels. People were interested to see a locomotive that was first invented. The cars are very useful to us. About 33 years ago, people began to make many cars in the United States. There are a great many cars in the world.

One hundred years ago, we had no steamboats, but we have many steamboats at present. The steamboat was at first invented by a wise man named Fulton, of New York. He made the first trip in New York. The people were astonished that a steamboat was invented. A steamboat is a large vessel propelled by steam. It always sails in the water with the steam engine. It has a large boiler and a large steam-pipe, for the steam blows out of the steam-pipe. It sails from a city to another. The steamboat is made for people to ride in, and also for conveying many barrels, boxes and other heavy things. During the Great Rebellion, the steamboats were filled with many soldiers, riding from New York to the South, to fight with the rebels. The people were interested to see a steamboat that was curiously invented. There are a great many steamboats in the world for commerce at present. They are very useful to all the people for trading.

One hundred years ago, there were no furnaces but many stoves, for the purpose of warming us as we stand by the registers. The furnaces cannot be made for cooking, but the stoves are made for cooking and warming. The furnaces we like better than the stoves. They are very good for warming. We have a great prosperity in making many things. I give you an account of this, for we have done so differently from our ancestors in respect of habits and modes of life.

I. H. D.

Born deaf. In school four years and a half.

## ESSAYS BY THE MEMBERS OF THE GALLUADET SCIENTIFIC SCHOOL.

### BOTANY.

The subject of my composition will be Botany, and some of the advantages derived from studying it. Botany treats of different kinds of plants, their structure, their growth from the seed, and the growth of the embryo in the seed. If one cuts open a seed of any plant, he will find the embryo inside ready formed, and when it sprouts, it comes in the shape of a pair of leaves on a tiny stem called cotyledous. By-and-by another stem appears—between these two—and so on, till the once little stem becomes a full-grown tree or plant.

But the growth does not continue alone in the way above mentioned; the main stem, after attaining a certain height, gives off side branches, and these in their turn, produce other branches called branchlets, which give rise to still smaller stems. This arrangement of the growth of a tree, is not so in all cases; in other trees it is entirely different: all evergreens are examples of this. Instead of giving off branches, the main stem continues to grow, from which other branches are produced. Leaves that appear on the branches are in different orders; sometimes two are placed side by side directly opposite each other, while the third is opposite the second, and, therefore, over the first. This arrangement is called two-ranked. They may also be called three, four, five, or eight-ranked, according to the number of leaves to be found round the stem.

Botany is not confined merely to the structure and growth of plants. It also relates to flowers, their parts, and the chief uses they are to each other. Here, I have a buttercup before me, for inspection. Before unfolding itself, there will be seen five outside leaves of the blossom, called the calyx, but taken individually, they are termed sepals, and also another sort of leaves inside of the first, of a different color and more delicate texture, called the corolla or petals, separately. They, when taken together, are sometimes known as the perianth, and serve to protect and nourish the more delicate parts within, but they do not themselves make a perfect flower. In the present state of this flower, inside of these second leaves, are opened to our view what we call stamens or fertilizing organs, in varying numbers, and directly within and closely surrounded by these, are pistils in close contact, and of a greenish white color. The office of the stamens is to fertilize, that of the pistils to bear the seeds. The stamen has two parts, the stigma and the anther; those of the pistil are three, the ovary, style and stigma, but in this flower, the organs are so small that some parts are scarcely noticeable to ordinary observation. A flower having all these parts is complete, but there are many exceptions to this arrangement. Many are destitute of one or more of these parts.

There are other things which Botany still further teaches us, but we cannot study them well unless we begin from the beginning. It tells of their classification—to what species, orders and classes the plants belong, &c. The best way to find out these, is first to find out their names and to learn the peculiarities of all flowers; wild flowers are considered the best for analysis and are therefore more looked for. The way of making a herbarium is also important to know, but it is chiefly from the Manual of our Botany, that our knowledge of the names of the various species and classes of plants is derived.

The student after carefully studying his Botany through, finds a lively interest in analyzing flowers, and in giving names to those which have hitherto been unknown. By studying it, our knowledge of plants greatly increases, and our interest in watching their development is widely extended. It also inspires in our hearts a love for Nature, and so Botany is altogether, a very pleasant and profitable study.

L. E. H.

## LIGHT.

It is that by which we can see. It is of great profit to us, for without it, there will be great darkness upon the earth, and we all shall die soon, and all the beasts and vegetables die, too.

We have all seen the golden light of the sun, the silvery light of the moon, the glimmering light and the changing light of the fire. I love to see the delightful sight of the rising sun every morning, and rising of the moon every evening. The moonlight is very delightful in the winter, and also in the summer. In the winter I sometimes skated on the ice by the moonlight and enjoyed it very much. While my home on a hill faces the River Hudson, the sun rises every morning and shines upon the river and my house, and as the light struck the river and was thrown off in another direction towards the house, it illuminated it very brightly.

Light is an imponderable agent, or it has no weight. The book says that it moves at the rate of one million seven hundred and seventy-nine miles, or seventy and ninety-one times round the earth in a second of time, or twelve millions of miles in a minute.

Light moves only in straight lines, but can be bent or broken from one direction to another direction. For example: light moves straight from a lamp, and strikes a mirror or other polished surface, and is thrown off in another direction.

It has seven different colors, as follows: red, orange, yellow, green, blue, indigo and violet. When we let these fall on a convex lens, they may be brought together again so as to form white light.

Light is a great agent in the vegetable world. It is the light of the sun that makes the leaves and grass green; roses red, flowers beautiful, snow white, and many other things of every color. It makes apples and pears sweet, and lemons sour. It makes the sky and ocean blue and beautiful. The light warms us, and makes us comfortable and healthful.

The natives of the Polar regions have no light during the long and dreary winter as we have, but the northern lights, or Aurora Borealis, often occur there and are of great utility to them, relieving them and compensating them for the long absence of the sun.

The seamen need light very much in the night. There are light-houses on rocks or on points of land or isles, that they may explore the dark and dreadful way of the sea, and keep their ships from dashing against rocks in the night, but if the light in the light-houses be put out, how great a darkness falls upon the land and upon the sea! And the mariners, waiting for light or seeing it not, may perish, and the ships may dash against the rocks and be broken into pieces.

How great is the utility of the light! L. A. H.

### AGRICULTURE.

What I intend to give, is a short account of the present system of agriculture, as compared with that of ancient times, and with what it will become in future.

The ancients were interested in the cultivation of the soil to some extent, but depended for support principally upon their flocks. They did not stay long in one place, for the grass would be exhausted; but scattered themselves over a wide surface of country, changing the feeding-grounds of their stock as often as was necessary. These changes prevented their remaining in one place long enough to bring the soil under good cultivation. They were satisfied with this mode of life, and continued to follow it for a long time. A part of the generation which lived in later times, did not take care of herds or cultivate the ground, but subsisted on the spoils of the chase. But when population began to increase and cities to rise, the above modes of using up the products of mother earth were found to be too expensive, and agriculture was gradually resorted to with good effect. The first attempts would look ridiculous to farmers of the present day. The ground was merely scratched, and the seed left to sprout in the best manner it could.

The mode of agriculture practised at the present time, is the result of the long and varied experience of the many nations who preceded us. It differs in many parts of the world according to the nature of the soil, intelligence of the husbandmen, ratio of population, and force of habit. In Europe, where a portion of the soil is barren through excessive culture, the population large, and science much advanced, for the most part the land is cultivated with care, and as much as possible is returned to it to balance what is taken away. In South America, where the soil is very rich, the people living many miles apart, and plants growing as if they were mushrooms, little care is expended on agriculture. The only thing they do, is to get the seed into the ground by a series of scratching with wooden plows, and tramping with oxen and troops of peons or servants. An idea of their modes of harvesting their crops may be obtained, when it is known that in carrying corn from the fields to the houses, they often tie the stalks into bundles, and fastening them to their mules' tails, gallop home, shelling and losing half of the corn in the journey. The general feature of cultivation in the United States does not vary greatly in the North, South, East or West. In the north-east parts, agriculture seems to be the most advanced. Many labor-saving contrivances, got up by Yankee ingenuity, are put into universal use, and science, chemistry, and the manufactures, give their aid to its rapid advancement. In the West and South, the land being wild and in most cases very fertile, and therefore not in need of returns for that taken from it, agriculture is carried on on the "skin and get rich" system. As a natural consequence many tracts of land in the south are prematurely worn out. But, thanks to the shallowness of the plows that were used, the sterility does not extend to the depth of more than four inches, usually. So I am personally assured by one who has been in Dixie Land, and am bound to believe him. In the tropical and more thinly settled portions of the earth, the inhabitants hardly bestow any care on agriculture. The plants are very numerous, grow of themselves, and furnish enough food for all and to spare.

China, densely peopled, furnishes a good example of what may be done in the matter of getting a great deal out of the land with little surface. It could not support all its people, were the mode of agriculture practised here, put into use there. The long experience of the Chinese, extending back for many centuries, has taught them the best mode of cultivating the soil, and we, laying aside our knowledge of chemistry, and advantages derived from our many handy instruments, must admit that they are in advance of us in agricultural economy.

The grand principle with them is to return to the soil as much as they take from it, and they spare no endeavours to effect this. Our farmers know the soundness of this principle, but preach it too much and practise it too little.

The population of the world steadily increases, the soil slowly but surely decreases in fertility with the increasing drain upon its resources, and at this rate, not enough food could be produced in the course of several thousand years to support all the increased number of people. However, agriculture will improve, and I am sure that the time will come when an average of an acre of land to each person, will suffice to support him in all things, such as food, clothing, shelter, &c. Now it requires more than one to each person.

Some lands have been worn out through mismanagement, greed of gain, or long subjection to a particular kind of crop, as tobacco, cotton, &c. They can be restored to their former fertility only by a long and careful course of culture.

Many of the leading agricultural papers, strongly and sensibly urge the use of machine, ox, or horse power in farming. Such power *must* and *will* come into use, and man will have nothing to do, but superintending the work it will perform. Steam plowing has been put into use at the west. Many are the new inventions of plows, cultivators, &c., offered for public trial, and if, with their aid, we could do as much work in an hour as we could without them in two, and at the same time do the work better, we would be foolish not to use them.

The art of cultivating the soil will improve. With all the aid science and manufacture can give it, it will become one of the best methods of developing the resources of a country. Properly conducted, it will make the inhabitants intelligent, peaceful, and not lacking in worldly goods. It will be fulfilling the law of the Bible, in condemning man to eat the fruits of the field, and in obeying this law, happiness can be found. Well and truly did Washington say, "Agriculture is the most useful, the most noble, and the most healthful employment of man." W. L. B.

### STEAM THEORIES *vs.* FACTS.

The ultimate quantity of mechanical power which theory assigns to steam is so great, that there is something tantalizing in comparing therewith, the dynamical results attained by even our best engines.

Theory, of course prescribes an infinite pressure, and an infinite degree of expansion. As a practical approach to such a pressure, we have the legend of Alban, the German doctor, who sent his steam on the piston at 1,000℔s per square inch. The same thing was done also in London, England, some time ago; and although the performance was for no great length of time, it was not recorded that any one was blown up. Now to obtain the greatest effect, theoretically at least, from steam, of whatever pressure, it is necessary to work it in a condensing engine, and to condense down to a perfect vacuum. Let us suppose, then, that steam of a total pressure of 1,000℔s per square inch, as measured from a vacuum, is expanded to a final pressure of one-tenth of a pound only per square inch, as measured above the same *datum*. Here the expansion is ten thousand fold; and if the temperature of the steam be maintained during expansion, by superheating or steam jacketing, the effect or power obtained will be 10.21 times greater than if the same weight of steam were worked without expansion. Thus, if an engine work, without expansion, with 5℔s of coal per hourly indicated H. P., the rate of expansion just considered should result in a consumption of 49℔s of coal only for the same effect, this quantity being exclusive, however, of that required to maintain the heat of the steam during expansion. But, if we could impart even three-fourths of the full heating value of good coal to the water in steam boilers, we should, upon the same theoretical consideration, attain to a still greater degree of economy. Thus, a pound of good coal gives off in combustion as much heat as would raise 16,000℔s of water through a temperature of 1°, or more than enough to raise 13℔s of water of ordinary temperature into very high pressure steam. If, then, we attain an ordinary rate of evaporation of 10 pounds of water per pound of coal, we should be working with, say, 3 pounds of coal per hourly indicated H. P., with condensation and without expansion; and with the allowance already mentioned for maintaining the temperature of the steam during expansion, with hardly more than a $\frac{1}{4}$ pound per H. P., with an expansion of ten thousand fold. This would be a tolerably close approximation to the theoretical economy of heat as referred to Joule's equivalent.

For if we obtain from a pound of coal, say 12,000 "units of heat," or in other words, as much heat as would suffice to raise 12,000℔s of water through 1°, or 10℔s of water through 1,200°, then the mechanical power represented by each unit of heat being 772 foot pounds, the corresponding total power represented by a pound of coal, (even when but three-fourths of its total heating power is calculated upon,) is 9,264,000 foot ℔s, equal to $\frac{9264000}{1980000}=4.67$ hourly H. P., corresponding to 0.214 pounds of coal only per indicated H. P., per hour.

In actual practice, these figures are never reached, our best engines seldom obtaining much over one horse power from two pounds of coal, and this, among practical mechanics, is generally adopted as the standard of maximum efficiency. Therefore, from the foregoing, we are left to deduct one of two things, either that our present mode of converting heat into mechanical power is very defective, or, that the tables set down for the re-conversion of mechanical power into heat, contains a great error, and I propose to prove that it is our practice which is wrong. To begin with, then: There is no limit to the capacity of steam to absorb heat, except that of the strength of the containing vessel, and as the elastic force of steam increases in exact ratio to its temperature, it follows that the greater its temperature, the greater is the mechanical effect to be obtained from a given quantity of steam, and by a proper arrangement of parts, all the additional heat required to produce a higher temperature, may be saved from the *waste heat*, which, a few cases excepted, is *seven-twelfths*, or *three-fourths* of all the heat produced. Then, by condensing the superheated steam to a perfect vacuum, and taking up the water of condensation as the feed water, a further reduction in the amount of heat required to raise one pound of water through 1°, can be effected, for it is patent that the higher the temperature of the water, the less heat will be required to convert it into steam of a given density and temperature. Thus, it is evident that "the one thing needful" is a more perfect mechanical apparatus for properly converting coal and other combustible substances into what is called heat; and also, for taking up the heat thus produced and changing it into motion or force. Let me, then point out several radical defects in our present mode of burning fuel. Joule, in his equivalent as above stated, gives one pound of coal "12,000 units of heat." Now if this pound of coal is burned into carbonic oxide with six pounds of air, instead of being burned into carbonic acid with twelve pounds of air, the number of units of heat eliminated from it, will be reduced fully one half, or say from 4,400 to 6,000 units instead of 12,000.

Another cause of the difference, is the quantity of unconsumed air passing through the furnace and thus lessening the volume of gases as it cools them; for if the pound of fuel is burned with the requisite quantity of air at an estimated temperature of 4,580°, (the common intensity,) it will have a temperature of only 2,240°, if twice the quantity of air necessary for combustion is admitted, and such indeed is generally the case. This causes the products of combustion to pass through the boiler very rapidly, preventing the complete absorption of the heat by the water. So great is this evil, that it is proven by actual experiment, that while the temperature of the steam in the boiler may be 300°, that of the escaping gases in the smoke stack is as high as 800°, or 1,000° Fah.; an exhibit which reveals an enormous waste of heat, and provides abundant room for improvement. To remedy this defect in a great measure, every boiler should possess a regulator to admit the requisite quantity of air, proportionate to the size of boiler.

Again, the expansive working of steam, effects a further reduction in the quantity of fuel required; for a given bulk of steam is produced by a given bulk of coal, and a diminution in the one produces a corresponding reduction in the other, according to natural laws. Steam worked expansively, effects more than when non-expansive, and the degree of economic efficiency depends entirely upon the rate of expansion, as a matter of course; and it is very generally conceded that high rates are the most effective; still there is great diversity of opinion on this vital subject, and any quantity of theory is put forth by those opposed to expansion, in support of their own ideas, but I am of the opinion that *one fact* is worth a *bushel of theory*, and accordingly in this article I propose to deal in facts. *Apropos*, experience in actual practice, has revealed the fact that seventy per cent. more power is obtainable from the same amount of fuel, by cutting off at one-tenth of the stroke from the beginning, than can be obtained by cutting off at seven-tenths from the beginning, (the theory of the

Navy Department). Still greater results are obtained, where, however, piston speed is no object, by cutting off at one hundred and forty-fourth part of the stroke, from the beginning, at which rate the maximum limit of economic efficiency is reached. As an illustration of the above, I can mention the engines of Cornwall, and many of the steamers in the China trade, the "Fouh Kien," in particular, whose performances are too well known to need comment.

Now comes the question of very high pressure steam, and the verdict of every experienced man is, that its use secures every advantage, especially a high rate of expansion, which requires the minimum of heat only.

With a pressure of 150lbs per square inch, cutting off at one-tenth of the stroke from the beginning, the pressure at the end of the stroke would be only 15lbs per square inch, or at 50lbs, the pressure would be only 5lbs. Again, with a boiler pressure of 1,000 pounds per square inch, the pressure at the end of the stroke of the piston, maintaining the same rate of expansion, and cutting off at the same point, would be 100 pounds per square inch, an expansion of ten fold. A high pressure of course necessitates a strong boiler, at the same time admits of such a reduction in the size for a given power, that an increase of strength becomes a matter of great ease, for be it known, that the smaller the boiler, the greater is its strength. This rule holds good in every case. Boilers are now made which carry 180 and 240 pounds pressure to the square inch, as an ordinary working pressure, and all such boilers are less in size, by half, than boilers of the same engine power and using steam at a pressure of only 90 and 120 pounds per square inch. As a matter of course these boilers prove very economical, for it must be evident that a boiler containing 100 cubic feet of water heated to a given temperature, must require twice as much coal as one containing only 50 cubic feet of water and heated to the same temperature, the length of time and other things being the same in both cases. As a very high pressure admits of a reduction in the size of boilers of about fifty per cent., the fact is rendered patent that high pressure gives the maximum of economy in fuel, to say nothing of the reduction in the first cost of boiler, diminished weight, cost of transportation, and space occupied—all important considerations.

In conclusion, to attain the theoretical perfection in the use of steam which is so desirable, and bring our engines to yield the ultimatum of power with the minimum of cost, we have to keep one principle only in sight and practice it. That principle is to so arrange parts that there shall be the largest possible production of heat, with the least possible waste, in the smallest given space and time, and the immediate absorption of the heat thus produced by the water in the boiler, thus ensuring a rapid and voluminous production of steam from the smallest given space.

From the foregoing, it will be seen that high pressure, super-heated, expansive, condensed steam, possesses every advantage in practice, never failing to give entire satisfaction wherever employed and always yielding the largest amount of power from the smallest amount of fuel.

That these results will be still further improved upon, there is indisputable evidence, and that the figures given in Joule's equivalent will, at some future day, be the mechanical standard of maximum efficiency in the use of steam, I am fully assured. A. J. H.

[NOTE.—The writer of the above, lost his hearing at ten years of age. He spent the last year in a machine shop, resuming his place in his class at the commencement of the present term.]

# TERMS OF ADMISSION.

I. The Asylum will provide for each pupil, board, lodging and washing; the continual superintendence of health, conduct, manners and morals; fuel, lights, stationery and other incidental expenses of the school room; for which, including TUITION, there will be an annual charge of one hundred and seventy-five dollars.

II. In case of sickness, the necessary extra charges will be made.

III. No deduction from the above charge will be made on account of vacation or absence, except in case of sickness.

IV. Payments are always to be made six months in advance, for the punctual fulfillment of which, a satisfactory bond will be required.

V. Each person applying for admission, must be between the ages of EIGHT and TWENTY-FIVE years; must be of a good natural intellect; capable of forming and joining letters with a pen, legibly and correctly; free from any immoralities of conduct, and from any contagious disease.

Applications for the benefit of the Legislative appropriations in the States of Maine, New Hampshire and Massachusetts, should be made to the Secretaries of those States respectively, stating the name and age of the proposed beneficiary, and the circumstances of his parent or guardian. Applications as above should be made in Vermont, Rhode Island and Connecticut, respectively, to his Excellency, the Governor of the State. In all cases, a certificate from two or more of the selectmen, magistrates, or other respectable inhabitants of the township or place to which the applicant belongs, should accompany the application.

Those applying for the admission of *paying pupils*, may address their letters to the Principal of the Asylum; and on all letters from him respecting the pupils, postage will be charged.

The time for admitting pupils is the *second Wednesday of September*, and at no other time in the year. Punctuality in this respect is very important, as it cannot be expected that the progress of a whole class should be retarded on account of a pupil who joins it after its formation. Such a pupil must suffer the inconvenience and the loss.

It is earnestly recommended to the friends of the deaf and dumb, to have them taught how to write a fair and legible hand before they come to the Asylum. This can be easily done, and it prepares them to make greater and more rapid improvement.

When a pupil is sent to the Asylum, unless accompanied by a parent or some friend who can give the necessary information concerning him, he should bring a written statement embracing specifically the following particulars:

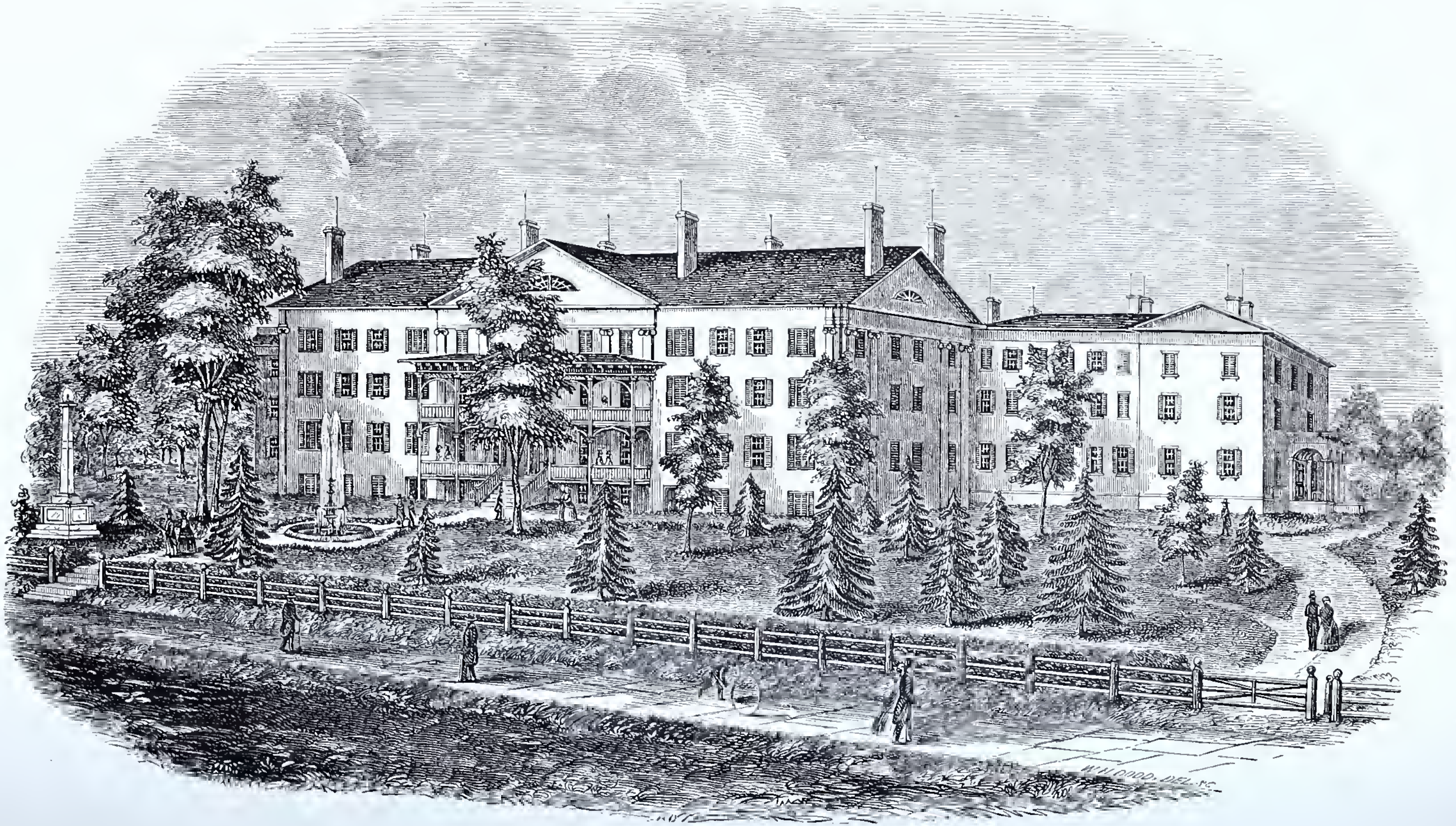
1. The name, in full.
2. Post office address, and correspondent.
3. Day, month and year of birth.
4. Cause of deafness.
5. Names of the parents.
6. Names of the children in the order of their age.
7. Were the parents related before marriage? If so, how?
8. Has the pupil deaf-mute relatives? If so, what?

The pupil should be *well clothed;* that is, he should have both summer and winter clothing enough to last one year, and be furnished with a list of the various articles, each of which should be marked. A small sum of money should also be deposited with the Steward of the Asylum, for the personal expenses of the pupil not otherwise provided for.

Careful attention to these suggestions is quite important.

There is but one vacation in the year. It begins on the last Wednesday of June, and closes on the second Wednesday of September. It is expected that the pupils will spend the vacation at home. This arrangement is as desirable for the benefit of the pupils, who need the recreation and change of scene, as for the convenience of the Institution, thus affording opportunity for the necessary painting, cleansing, &c. The present facilities for travel enable most of the pupils to reach home on the evening of the day they leave Hartford. Every pupil is expected to return punctually at the opening of school, on the second Wednesday of September.

On the day of the commencement of the *Vacation*, an officer of the Asylum will accompany such pupils as are to travel upon the railroads between Hartford and Boston, taking care of them and their baggage, on condition that their friends will make timely provision for their expenses on the way, and engage to meet and receive them immediately on the arrival of the *early* train at various points on the route previously agreed on, and at the station of the Boston and Worcester Railroad, in Boston. A similar arrangement is made on the Connecticut River Railroads, as far as to White River Junction. No person will be sent from the Asylum to accompany the pupils on their return, but if their fare is paid and their trunks checked to Hartford, it will be safe to send them in charge of the Conductor.


W. H. DODD, DEL. SC.

AMERICAN ASYLUM.

# ALPHABET OF THE DEAF AND DUMB.

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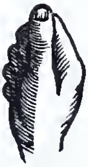

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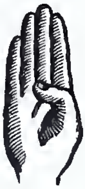

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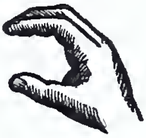

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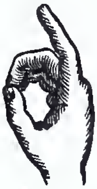

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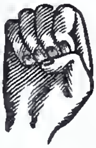

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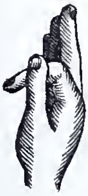

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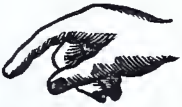

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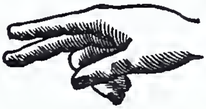

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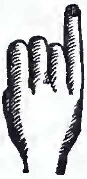

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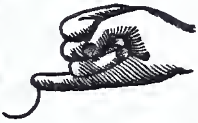

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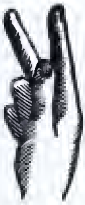

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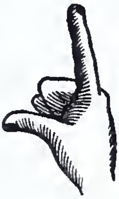

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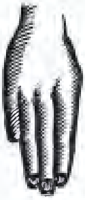

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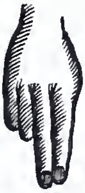

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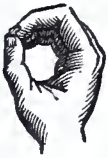

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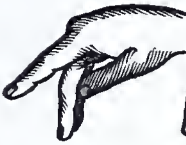

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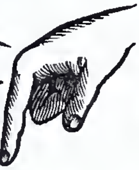

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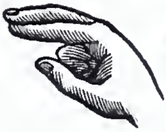

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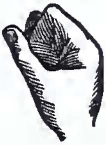

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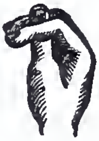

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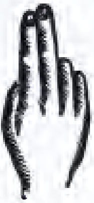

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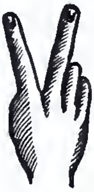

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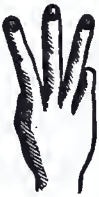

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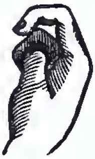

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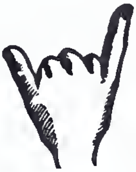

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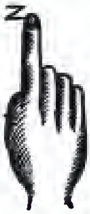

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